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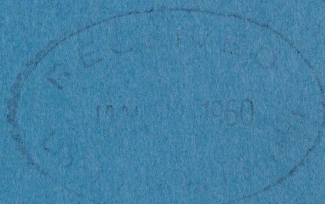
Government
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REPORT of the DEPARTMENT of PUBLIC WORKS

for the fiscal year
ended
MARCH 31,
1959

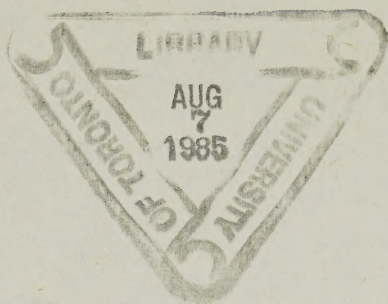


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REPORT of the
DEPARTMENT of
PUBLIC WORKS

for the fiscal year
ended
MARCH 31,
1959



To His Excellency Major-General Georges Vanier, D.S.O., M.C., C.D., Governor-General and Commander-in-Chief of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1959.

Respectfully submitted,
DAVID J. WALKER,
Minister of Public Works.

OTTAWA, October 26, 1959.

The Honourable David J. Walker, Minister of Public Works, Ottawa.

SIR:

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1959.

Your obedient servant,

H. A. YOUNG,

Deputy Minister.

OTTAWA, October 26, 1959.

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

(As of March 31, 1959)

Minister.....	Hon. Howard C. Green
Executive Assistant to the Minister.....	R. J. Jephson
Deputy Minister.....	Major-General H. A. Young
Executive Assistant to the Deputy Minister..	H. G. J. Walls
Assistant Deputy Minister.....	George T. Jackson
Chief of Administrative Services and Secretary	Robert Fortier
Director, Economic Studies Branch.....	Dr. E. P. Weeks
Financial Adviser.....	L. V. McGurran
Chief, Purchasing and Stores Branch.....	H. G. Hunt
Chief, Information Services.....	E. J. Marten
Chief, Personnel Branch.....	G. R. Lucas (Acting)
Chief, Legal Services.....	C. R. O. Munro
Dominion Fire Commissioner.....	C. A. Thomson

Regional Directors

Montreal, P.Q.....	R. J. Grenier
Edmonton, Alta.....	O. H. Leicester

Harbours and Rivers Engineering Branch

Chief Engineer.....	G. Millar
Executive Assistant Engineer.....	P. W. Walters
Chief, Marine Excavation Division.....	C. K. Hurst
Chief, Maintenance and Operations	
Division.....	J. E. Bright
Chief, Planning and Construction	
Division.....	G. T. Clarke

District Engineers

St. John's.....	G. E. Knight
Charlottetown.....	C. W. Currie
Halifax.....	J. A. Brown
Saint John.....	J. F. Godsell
Rimouski.....	G. Lajoie
Quebec.....	L. McLaren
Montreal.....	A. H. Gagnon
Ottawa.....	J. M. Vogin
Toronto.....	R. P. Henderson
London.....	G. N. Scroggie
Fort William.....	E. B. Ashton (Acting)
Winnipeg.....	C. L. Davies
Edmonton.....	J. E. Kellett
Vancouver.....	A. W. Walkey

Development Engineering Branch

Chief Engineer.....	G. B. Williams
Administrative Officer to Chief Engineer.	W. D. Egan
Chief, Highways Division.....	R. A. Campbell
Chief, Structures Division.....	V. S. Thompson
Chief, Testing Laboratories.....	N. E. Laycraft

Supervising Engineers

Newfoundland.....	A. L. Perley
Nova Scotia.....	H. F. Peters
New Brunswick and Prince Edward Island.....	H. A. Nason (Acting)
Ontario.....	W. Koropatnick
Manitoba and Saskatchewan.....	J. A. Flatt
Alberta and Northwest Territories.....	J. E. Savage
Banff, Alberta (Western National Parks).....	A. H. MacKinnon
British Columbia.....	R. F. Petursson
Whitehorse, Yukon Territories.....	F. James

Building Construction Branch

Chief Architect.....	E. A. Gardner
Assistant Chief Architect.....	A. K. Mills
Assistant Director i/c Administration...	E. C. Martel
Chief, Requirements Division.....	E. G. Langley
Chief, Plans and Specifications Division...	I. B. Simpson
Chief, Northern Construction Division..	G. B. Pritchard

District Architects

St. John's.....	L. W. Hopkins
Halifax.....	P. W. Vaughan
Saint John.....	P. S. Hunter
Quebec.....	J. A. Drolet
Montreal.....	P. R. Martineau
Ottawa.....	A. H. Taylor
Toronto.....	J. E. Kelly
Winnipeg.....	H. C. Tod
Edmonton.....	A. E. Cook
Vancouver.....	R. J. Bickford

Property and Building Management

Director.....	D. A. Freeze
Assistant Director.....	R. G. McFarlane
Chief, Lands Administration Division...	W. F. Cherry
Chief, Accommodation Division.....	A. S. Archard
Chief, Operations Division.....	E. W. Labelle

District Managers

St. John's.....	J. W. Pye
Halifax.....	J. L. Hurley
Saint John.....	R. S. Lawrence
Quebec.....	E. Raymond
Montreal.....	G. K. Aubut
Ottawa.....	G. O. Bigaouette
Toronto.....	W. T. Rutherford
London.....	W. H. Kayes
Winnipeg.....	F. H. Weyerman
Saskatoon.....	R. S. Fonberg
Edmonton.....	G. T. Gibson
Vancouver.....	A. W. Holloway

REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1959

The works programme carried out by the Department during the 1958-59 fiscal year was larger than that for the preceding year. Total expenditures for 1958-59 amounted to \$249,821,855.35 including \$33,881,580.35 spent under encumbrances from other Departments. This is an increase of \$11,153,716.73 over 1957-58. Important works underway during the year included the large harbour development at St. John's, Nfld., the construction of the Lakehead shipping terminal between Port Arthur and Fort William, contracts associated with the Riverside Drive Development in Ottawa, the extension of the Mackenzie Highway in the Northwest Territories, the construction of the low-level lift bridge at Burlington, Ontario and the Interprovincial Bridge between Campbellton, N.B. and Cross Point, Quebec, wharf construction at Hamilton, Ontario, and the construction of public buildings at Shawinigan, Quebec, Vancouver, B.C., Toronto, Ont., Fredericton, N.B. and Moose Jaw, Sask.

On April 5, 1958, the largest blast ever set off in Canada using 2 $\frac{3}{4}$ million pounds of explosives, successfully removed Ripple Rock from the Seymour Narrows, near Vancouver, B.C. This serious hazard to navigation, two peaks 9 and 19 feet below low water, was lowered to 47 feet below low water and involved the removal of 370,000 tons of rock.

The Department's programme to increase the winter employment resulting from its operations was continued during the year. A total of 67 small post office buildings, costing not more than \$25,000 each, were constructed entirely during the winter months in various centres across Canada. The practice of inserting a clause in all contracts requiring contractors to continue operations during the winter months was continued. It is estimated that this resulted in 3,400,000 man-hours of employment being provided in building construction work, 960,000 man-hours in small interior works and 250,000 man-hours in highways work. Various other measures were also taken on behalf of winter employment.

There was an increased activity in the building programme in the Yukon and Northwest Territories. This included construction of hospitals, housing and federal building at Inuvik, hostels and housing at Fort Simpson, Federal housing at Yellowknife, an office building and staff quarters at Fort Smith, housing at Fort Providence and Hay River as well as R.C.M.P. Detachment Quarters at Mayo and Watson Lake.

Harbours and Rivers Engineering Branch

During 1959 an extensive programme of activity was carried out by the Harbours and Rivers Engineering Branch, the principal function of which is planning, design and construction of marine works and planning and execution of dredging operations to facilitate water transportation as well as the engineering aspects related to the Navigable Waters Protection Act.

Construction and repairs were made to 472 wharves, breakwaters, other harbour facilities and protection works, of which 274 were completed during the year and 198 still in progress as of March 31, 1959. In addition to this, 1,450 smaller projects were undertaken.

Dredging was carried out in 356 locations, involving the removal of 10,742,075 cubic yards of material.

Tabulated details of operations of the Harbours and Rivers Engineering Branch will be found in the Report of the Chief Engineer, Page 19.

Development Engineering Branch

The responsibilities of the Development Engineering Branch are in the highway, bridge and structural field, in addition to the testing of many materials and supplies used by Federal Government Departments and Agencies. The Branch is also responsible for special engineering projects not related to harbours and rivers work. An example of projects in the latter category undertaken or continued during the year 1958-59 is the feasibility study which the Development Engineering Branch is making of the proposed highway and rail crossing of Northumberland Strait between Prince Edward Island and the mainland. The Branch is divided along functional lines into three Divisions: Highways, Structures and Testing Laboratories.

The Highways Division is responsible for the general administration of the Trans-Canada Highway Act and the Trans-Canada Highway Agreements with the participating Provinces. The Division is also responsible for the construction of the Trans-Canada Highway through National Parks wherever this is a part of the system. It carries out the construction of major highways other than the Trans-Canada within all National Parks and in the Northwest Territories and Yukon. It also undertakes the operating responsibility of the joint Federal-Provincial Roads to Resources Program.

The Structures Division is concerned with the approval of the design for bridges under the terms of the Trans-Canada Highway Agreements and for design and construction of those forming part of the Trans-Canada Highway through the National Parks. It is also responsible for bridges on other National Parks roads and in the Northwest Territories and Yukon, built for the Department of Northern Affairs and National Resources. It has responsibilities with respect to the design and construction of international and interprovincial bridges in which the Federal Government participates. The Structures Division also advises and assists in the design of bridges and other structures related to the development of the National Capital Plan.

The Testing Laboratories is responsible for the testing to standard specifications of a great variety of materials, supplies and equipment used by various Federal Departments and Agencies. It also provides field testing facilities and consultant services in its particular field. During the year the Testing Laboratories was moved from its former building at Tunney's Pasture to a new structure on Riverside Drive. This new building provides better accommodation for the expanding testing operations of these laboratories. During the course of the year work was carried forward on the geological and rock investigational studies which the laboratories had undertaken previously, in connection with the proposed road and rail causeway across the Northumberland Strait. During the same year the Testing Laboratories completed its work in regard to the durability of aggregates, concrete mix design, and concrete quality control on behalf of the St. Lawrence Seaway Authority.

The principal development by Divisions, as well as tabulated details of operations, will be found in the report of the Chief Engineer, Development Engineering Branch, Page 33.

Building Construction Branch

Contracts for the construction, alterations and improvements to 276 Federal Buildings and other premises occupied by government departments were awarded during the fiscal year 1958-59. Work was still in progress on 193 projects at the end of the fiscal year. These totals include building projects undertaken

by the Department of Public Works for other government departments. Details of these works will be found in the Report of the Chief Architect, Page 53.

The extensive programme of building in Ottawa was continued. The buildings on which construction was started were the Surveys and Mapping Building, the Communication Building, the Central Heating Plant at the Central Experimental Farm and the Post Office Buildings and Central Heating Plant on Riverside Drive.

An expanded programme of construction of fairly large buildings was also in progress across the country, including sizeable projects such as the Post Office Buildings at Spaniards' Bay, Nfld. and Port Borden, P.E.I.; the Marine Stores Building at Dartmouth, N.S.; the Agricultural Research Laboratory at Fredericton, N.B.; the Federal Buildings at Shawinigan Falls, P.Q., Stratford, Ont., Portage la Prairie, Man. and Moose Jaw, Sask.; the Postal Terminal Building at Calgary, Alta. and the Science Service Laboratory at Vancouver, B.C.

Additions of considerable size were constructed to the Federal Buildings at Stephenville, Nfld., Ste. Anne de Bellevue, P.Q., Toronto, Ont., Windsor, Ont., Rivers, Man., Canora, Sask., Wainwright, Alta. and Sidney, B.C.

As part of the programme which began with respect to the Yukon and Northwest Territories, contracts were awarded during the year for a Hospital, Housing and Federal Building at Inuvik; a School, Hostels and Housing at Fort Simpson; an Office Building and Staff Quarters at Fort Smith; a School, Housing and Warehouse at Fort Providence; a School, House and Warehouse at Hay River; R.C.M.P. Detachment Quarters at Mayo and Watson Lake; Federal Housing at Yellowknife; and various other minor projects.

Members of the staff of the Building Construction Branch continued to work in close association with the National Capital Commission.

The Department also continued to work closely with the Civil Defence Organization.

Property and Building Management Branch

The Property and Building Management Branch is responsible for the acquisition and maintenance of properties and buildings accommodating Government Departments. Accommodation is provided in both Crown-owned and leased premises. The number of Crown-owned buildings under the jurisdiction of the Department at March 31, 1959, was 1,177.

One hundred and eighty-seven properties were acquired for building sites at a cost of \$2,497,167.03 and 518 properties were in various stages of acquisition at the close of the fiscal year, at an estimated cost of \$16,428,880.

The cost of maintaining Crown-owned and leased premises during the year was \$41,292,393.14. This included \$8,394,182.75 expended for rentals in 2,350 locations during the fiscal year. The following is a breakdown of the total maintenance cost by location:

Newfoundland.....	\$ 610,471.56
Nova Scotia.....	1,233,317.25
Prince Edward Island.....	240,970.76
New Brunswick.....	1,023,614.53
Quebec.....	6,741,531.72
Ontario.....	7,746,036.69
Manitoba.....	1,760,959.02
Saskatchewan.....	1,531,636.03
Alberta.....	1,775,761.47
British Columbia.....	3,309,774.11
Northwest Territories.....	19,199.50
Yukon Territory.....	171,287.05
New York, U.S.A.....	24,070.48
London, England.....	162,238.51
Ottawa, Ontario.....	14,941,524.46
	<u>\$41,292,393.14</u>

Rental cost of leased premises and leased land by location:

Location	No. of Leases	Total Cost
Newfoundland.....	71	\$ 163,023.64
Nova Scotia.....	130	270,009.99
Prince Edward Island.....	12	3,867.96
New Brunswick.....	103	207,596.00
Quebec.....	428	1,395,866.21
Ontario.....	564	2,108,300.85
Manitoba.....	134	377,028.26
Saskatchewan.....	253	261,049.04
Alberta.....	273	489,679.24
British Columbia.....	243	542,481.67
Northwest Territories.....	1	600.00
Yukon Territory.....	1	2,465.00
New York, U.S.A.....	1	22,116.17
London, England.....	13	93,096.87
Ottawa, Ontario.....	123	2,457,001.85
	<u>2,350*</u>	<u>\$ 8,394,182.75</u>

*NOTE: Not all leases were in effect concurrently however, and at March 31, 1959, the number of active leases was 2,029. Included in this report for the first time are 51 leases which relate to land uses only.

Purchasing and Stores Branch

The Branch continued to process requisitions for supply and purchase at an increased tempo reflecting once again the increased activities of the other branches of the Department as well as the steady increase of requisitions for furniture for other departments.

However, the Branch had some success in its efforts to reduce office furniture costs through a more vigorous furniture repair and re-issue programme. This was made possible by the co-operation of the Departmental Furniture Control Officers who were advised of the necessity to cut their estimated requirements at a meeting held in late November, 1957. A total of 8,555 specific furniture investigations were made as compared with 6,814 in the last fiscal year. The addition of a furniture investigator to the staff made this increase possible.

The inventory of furniture on issue to Government departments has now reached a replacement value of \$38,327,000.

The Departmental Board of Survey which was first formed in November, 1957, met nine times during the year to review applications for Write-Off.

The Branch processed a total of 18,038 requisitions which resulted in a total of 7,982 Purchase Orders being placed with approximately 54,000 individual invitations to tender being forwarded to potential suppliers. A total of 19,007 accounts were processed for payment.

Administrative Services and Departmental Secretary

During the fiscal year 1958-59, 720 various works were advertised, and the resulting tenders and securities processed through the Administrative Branch.

The continued growth of the Department was reflected in the volume of work of the Equipment and Supply Division. The Duplicating Unit of this Division produced 8,000,000 impressions during the past year.

Central Registry received and processed 208,896 pieces of correspondence and opened 8,056 new files.

In addition to its normal function, the Photographic Services Division provides service to twenty-six other departments. There has been an increase of ten per cent in the volume of work performed in this Division.

The Forms Control Officer processed 152 redesigned forms and classified, issued and indexed 132 general directives.

Economic Studies Branch

The Economic Studies Branch is concerned principally with the assessment of proposed public projects from the economic point of view, particularly where capital outlays are involved. During the year under review over 850 such projects were referred to the Branch, and specific recommendations were made on each one.

The Branch also made assessments of the economic and population growth prospects of some hundred communities across the country, where provision of new or additional space to accommodate various Federal Departments was being considered. The Branch is now represented on the Treasury Board Advisory Committee on Accommodation Standards.

Members of the Branch made on-site surveys of various harbours in Quebec, Ontario and British Columbia.

The interdepartmental group, formed in 1957, and consisting of senior officials of the Departments of Public Works and Transport, continued to investigate major harbour requirements in various parts of the country. The Director of the Branch served as Chairman of the group.

Financial Services Division

The Financial Services Division, under the direction of the Financial Adviser, acts in a liaison capacity on behalf of the Department in financial matters with the Treasury Board, the Comptroller of the Treasury and other departments and agencies.

The Division is responsible for the preparation, co-ordination and analysis of the departmental estimates and for the development and implementation of policies, methods and procedures relating to accounting and budgetary control throughout the Department.

Fire Prevention Branch

The Fire Prevention Branch, headed by the Dominion Fire Commissioner, is responsible for fire protection and fire prevention functions relating to Crown-owned and leased property, with the exception of that property under the jurisdiction of the Department of National Defence.

Over 150 plans of new buildings were reviewed with respect to the fire protection requirements including the fire resistance of the structure, the installation of fire protection equipment and the provision of adequate means of egress.

Fifty specifications for fire protection systems such as automatic sprinklers, fire alarm systems and standpipe and hose systems were prepared. In addition a fire protection engineer has been assigned part time to the Building Construction Branch as a consultant.

Eleven fire protection engineering surveys were undertaken for such properties as Department of Veterans Affairs hospitals and health centres, Indian Hospitals and National Parks. Through liaison with the provincial and municipal fire authorities approximately 600 inspection reports of the municipal fire departments were reviewed and recommendations forwarded to the Property and Building Management Branch for action.

Four hundred and sixty fire inspections and fire investigations were carried out in the Ottawa area in conjunction with the Ottawa Fire Department.

Following the gas explosion which involved the Jackson Building, Ottawa, gas installations in Federal Government buildings in the Ottawa area were surveyed and over 100 gas leaks were reported for repair. This work is now being carried out on a regular basis.

A series of Technical Information Bulletins was initiated and ten were published on a wide range of subjects such as flammable liquids, installation of heating equipment, explosions, and other fire protection matters. Although distribution was primarily intended for Federal Government Departments, etc., because of the demand their circulation has been extended to the Provincial Fire marshals and Fire Commissioners and other interested associations and agencies. More than 10,000 have been distributed to date.

Six new films were added to the Fire Prevention film library bringing the total to 104. There were over 1,000 bookings throughout the country and shown to an audience estimated at over 100,000, excluding television and theatre coverage. In collaboration with the National Film Board and the Ontario Fire Marshal's Office the film "Fire in Town" was produced which has won the "Award of Merit" from both the National Committee on Films for Safety, and the Canadian Film Council.

The 37th Annual Statistical Report of Fire Losses in Canada was compiled from reports received from the Provincial Fire Marshals and Fire Commissioners and 2,600 copies were distributed to Federal Government Agencies, Provincial Fire Marshals and Fire Commissioners, foreign government fire authorities, insurance companies, libraries, publishing companies, service organizations, etc. A similar, but more detailed report was prepared for Federal Government losses, which in 1958 were over \$2,500,000 from approximately 1,000 fires. Acting on the request of Treasury Board this office is now compiling the yearly report of fire losses in Federal Government property under the terms of the Fire Losses Replacement Regulations.

The Federal Fire Prevention Committee was established under the chairmanship of the Dominion Fire Commissioner to act as an advisory organization to the Dominion Fire Commissioner. The purpose of the Committee is to act as the liaison between the Federal Departments and Agencies, in the publicizing of fire protection activities (e.g. Fire Prevention Week), the sponsoring of educational programmes and the maintaining of Federal Government fire loss statistics. It is also to assist the Dominion Fire Commissioner when requested in the development of fire protection engineering standards and in the carrying out of fire protection engineering surveys, inspections and fire investigations. During the past year the Committee sponsored the Fire Prevention Contest for Federal Agencies and is at present engaged in the preparation of a standard for portable extinguishers.

Information Services Division

The Division provided information during the year for the press and other media on the basic operations of the Department. This included the issuing of 438 press releases announcing contract awards for various Departmental projects, the issuing of a monthly summary of contracts awarded, as well as issuing numerous statements and summaries in response to requests for information from daily and weekly newspapers, magazines, radio and television. Records and photographs concerning construction projects undertaken by the Department were maintained for information purposes. The Division maintains co-ordination and control of official ceremonies for the opening of public buildings, the laying of cornerstones and sod-turnings connected with various Departmental projects across the country. The Division also published the Department's staff magazine and operated a press clipping service covering 35 newspapers and 25 magazines.

The Parliamentary Returns Sections prepared information for answers to questions and returns requested in the House of Commons and the Senate during Parliamentary Sessions. This Section was also responsible for editing and publishing the Departmental Annual Report and the Trans-Canada Highway Annual Report.

The Departmental Library Section circulated books and periodicals to the District Offices across Canada as well as to the Headquarters area. As of March 31, 1959, the Library contained 15,500 catalogued volumes and various technical periodicals.

Legal Services Division

This Division is responsible for advice of a legal nature as required by the Department and is also responsible for the preparation of legal documents and examination and approval of various types of documents required to be submitted to the Department in relation to departmental functions.

Under the amended Navigable Waters Protection Act, the Railway Act and the Pipe Lines Act, a total of 458 applications were processed during the past year, as compared with 382 applications for the preceding year.

The number of submissions and recommendations directed to Treasury Board and Privy Council totalled 1,328 as compared with 1,113 for the preceding year.

During the fiscal year, the Department prepared 428 contracts for architectural works as compared with 281 during the preceding year and 460 contracts for engineering works as compared with 313 during the preceding year. In addition to the above, 64 miscellaneous contracts were prepared.

Every contract is protected by an Insurance Policy. The Policy is examined and approved by this Division prior to the execution of the contract on behalf of the Department and prior to the making of any progress payment.

In January, 1959, Treasury Board gave authority to a procedure whereby a contractor may submit a Performance Bond and Labour and Material Payment Bond in lieu of a security Deposit. These bonds require the examination and approval of this Division prior to the execution of the contract or prior to the release of a previous security deposit.

Documents in respect of titles to properties acquired by the Department numbered 360, an increase of 37 over the previous year.

Leasehold interests were acquired by means of new leases or renewals of existing leases for 611 properties. There were also 108 leases prepared for rental of Crown-owned properties representing an increase of 58 over the figure of the previous year.

Personnel Branch

A particular effort was made during the past year to recruit staff required by the Department's increased activities in the construction field. Some easing of the difficulty in recruiting Civil Engineers was experienced, but the shortage of professional and technical staff required for the extended highway construction programme continued.

Expansion of the Department's activities in the north involved the Personnel Branch in the implementation of Isolated Post Regulations developed by an Inter-Departmental Committee to compensate employees for the cost and other aspects of living in isolated centres.

Further progress was made in the appraisal phase of the Management Development Programme started during the preceding year. Representatives of the Personnel Branch took part in appraisals of the performance and potential of intermediate and senior level employees at Headquarters and in District Offices.

Three hundred and fifty employees received formal training through the Training Division. All new employees at Headquarters attended an orientation course. Courses in human relations and supervision were continued and a course in letter and report writing was introduced.

Fifty-one competitions were conducted by the Personnel Branch to permit Departmental staff to compete for promotion. Over two hundred competitions were conducted by the Civil Service Commission, open to employees of other Departments or the general public. Tests to determine the qualifications of Tradesmen were administered to seventy-six applicants for Prevailing Rates positions.

The Secretariat of the Suggestion Award Committee, which is provided by staff of the Personnel Branch, received 322 suggestions. Fifty awards were made including nineteen cash awards, totalling \$1,534.00. The highest award paid was \$270.

A contest held to stimulate interest in the Plan resulted in 144 suggestions being submitted during a six-week period. The first District Suggestion Award Committee was established in Vancouver to deal with suggestions from employees of all Branches of the Department in that area.

The authorized establishment of the Department for the year 1958-59 included the following categories of staff:

Professional and technical.....	809
Administrative and clerical.....	899
Ships' Officers and Crews.....	558
Prevailing Rate.....	2,233
Classified building maintenance and others.....	4,667
	<hr/>
	9,166
	<hr/>

EXPENDITURE

The total expenditure by the Department during the fiscal year 1958-59 on its various works of construction, maintenance and operation amounted to \$249,821,885.35 including \$33,881,580.35 expended under encumbrances from other departments, but not reported in Public Works accounts.

The details of this outlay may be classified as follows:

Harbour and river works.....	\$32,119,305.00
Dredging plant, etc.....	6,812,303.00
Public Buildings.....	106,607,223.00
Trans-Canada Highway.....	61,034,779.00
Minister's Salary and Motor Car Allowance.....	17,000.00
Departmental Administration.....	9,339,698.00
Other.....	9,997.00
	<hr/>
	\$215,940,305.00
Expenditures made under encumbrances from other departments but not reported in Public Works Accounts:	
Engineering Works.....	\$14,337,850.43
Public Buildings.....	19,543,729.92
	<hr/>
	\$ 33,881,580.35
	<hr/>
	\$ 249,821,885.35
	<hr/>

As compared with 1957-58 the total expenditure, including the amount expended under encumbrances from other departments, but not reported in Public Works Accounts, shows an increase of \$11,153,716.73. The increase in total expenditure for harbour and river works amounts to \$5,634,419.49; for

public buildings, \$5,918,300.24; and for administration generally, \$1,263,460.00. The decrease in expenditure for dredging, plant, etc., amounts to \$492,301.00 and for Trans-Canada Highway \$1,170,162.00.

REVENUE

The revenue for the year amounted to \$4,918,836.39 and is made up as follows:

Graving docks.....	\$ 286,629.21	
Rents.....	1,442,940.38	
Casual Revenue.....	3,188,969.80	
Ferries.....	297.00	
	<hr/>	\$4,918,836.39

As compared with last year there is a net increase of \$2,262,964.29. The increase in rents is \$78,390.73; casual revenue, \$263,744.56; and the decrease in graving docks in \$78,826.60; and from ferries \$344.40.

HARBOUR AND RIVER WORKS

Gerald Millar, Chief Engineer

NEWFOUNDLAND AND LABRADOR

The following is a list of works, under contract, which have been completed during the year:

Bonavista, wharf improvements; Catalina, construction of wharf and shed; Cow Head, construction of breakwater wharf; Herring Neck, wharf approach road; Little Catalina, construction of breakwater wharf; Port aux Basques, breakwater construction; St. John's, demolition of retaining wall; Valleyfield, shed reconstruction.

In addition to the above, construction of motor vessel "NUTAK" was completed.

The following works under contract, were unfinished at the end of the fiscal year:

Bauline, breakwater extension; Bay de Verde, breakwater reconstruction; Bell Island, wharf extension; Codroy, harbour improvements; Harbour Breton, wharf construction; Harbour Grace, wharf construction; St. John's, construction of Department of Transport wharf; St. John's, basin west of Department of Transport wharf.

Construction of M. V. "MAKKIVOK" and M. V. "RIGOLET" were still in progress.

Repairs and improvements were carried out by day labour or local agreement, at the following places:

Admiral's Beach; Admiral's Cove (Fermeuse); Anchor Point; Angel's Cove; Aquaforte; Aspen Cove; Avondale; Baine Harbour; Bar Haven; Battle Harbour; Bay Roberts (Beachy Cove); Belleoram; Benoit's Cove; Birchy Cove; Biscay Bay; Black Island; Branch (causeway repairs); Branch (breakwater repairs); Brig Bay; Brigus (Riverhead); Brigus South; Britannia; British Harbour; Burns Cove; Calvert; Cape Le Hune; Carbonear; Castor River; Channel (Sheaves Cove); Chapel's Cove; Clattice Harbour; Coachman's Cove; Coley's Point South; Colinet; Conche; Crow Head; Davidsville; Duntara; Elliston; Embree; English Harbour; English Harbour East; Fairhaven; Fermeuse; Fleur De Lys; Flower's Cove; Fox Harbour; Fox Roost; Foxtrap; Francois; Frenchman's Cove (Humber-St. George's); Frenchman's Cove (Burin-Burgeo); Garden Cove; Garnish; Great Paradise; Grole; Harbour Breton; Harbour Grace; Hant's Harbour; Hare Bay; Highlands; Hodge's Cove; Holyrood (Goff's Wharf); Holyrood (harbour improvements); Hopeall; Horse Islands (Winch); Horse Islands (breakwater); Humbermouth; Indian Burying Place; Keels; King's Cove; King's Point; Ladle Cove; Lady Cove; Little Bay (Hermitage); Little Burnt Bay; Little Fogo Island; Little Harbour East; Little Harbour West; Long Harbour (Mount Arlington Heights); Long Pond (Manuels); Lower Island Cove; Lower Lance Cove; Lumsden North; Monkstown; Mosquito; Muddy Hole (Pushthrough); Musgrave Harbour; Musgravetown; New Harbour (Parson's Harbour); Newtown (Sloops Run Tickle); Nipper's Harbour (Noble's Cove); North Harbour; North West River; Norris Point; Old Shop; Openhall; Pacquet; Parsons Pond; Pass Island; Peter's River; Pike's Arm; Pinware; Placentia; Plum Point; Point aux Gaul; Point La Haye; Point Lance; Pool's Cove; Port aux Choix; Port de Grave (Blow Me Down); Port De Grave (Lower

Harbour Cove); Port De Grave (Ship Cove); Portland; Portugal Cove South; Pouch Cove (Butter Gulch); Quirpon; Ragged Harbour; Ramea; Rattling Brook; Red Island; Reef's Harbour; Reginaville; Rencontre East; Round Harbour; Sandy Cove; Ship Cove (Cape Onion); Ship Cove (Harbour Main); Ship Cove (Port au Port); Ship Harbour; South Brook; Southern Harbour; Southport; Summerside; St. Brendan's; St. Carroll's; St. John's (retaining walls); St. John's (Site 15); St. Lawrence; St. Lunaire; St. Mary's; St. Paul's; St. Phillip's; St. Shott's; St. Vincent's; Terrenceville; Torbay (Tapper's Cove); Tors Cove; Traytown; Trepassey; Trinity East (Peace Cove); Triton; Trouty; Upper Bacon Cove; West St. Modeste (wharf); West St. Modeste (shed); Wild Bight; Wiltess Bay; Woods Island (Thibaults Cove); Woody Island; Woody Point.

Minor repairs were carried out at 155 other places.

NOVA SCOTIA

The following is a list of works, under contract, which have been completed during the year:

Battery Point (Victoria Beach), breakwater repairs; Bayfield, harbour improvements; Blandford, dredging; Blue Rocks, breakwater reconstruction; Boudreauville, breakwater repairs; Brooklyn, wharf repairs; Canso, breakwater extension; Caribou, wharf reconstruction; Carleton Village, breakwater; Carters Point, breakwater wharf; Cooks Cove, wharf replacement; Comeauville, breakwater repairs; Coopers Point, breakwater repairs; Cripple Creek, reconstruction of retaining wall; Delaps Cove, breakwater reconstruction; d'Escousse, wharf repairs; Dingwall, dredging; Dublin Shore, breakwater reconstruction; Eastern Passage, levelling of breakwater; Ecum Secum West, breakwater reconstruction; Englishtown, wharf repairs; Factory Cove, wharf reconstruction; Fourchu, breakwater repairs; Gabarus, groyne repairs; Glace Bay, dredging; Harrigan Cove, wharf; Grand Etang, dredging; L'Archeveque, breakwater repairs; Liscomb, wharf extension; Little Harbour (Lower Cherry Hill), wharf; Lunenburg (Battery Point), breakwater reconstruction; Marie Joseph, wharf reconstruction; Meteghan, breakwater repairs; Meteghan, dredging; New Edinburgh, breakwater repairs; North West Cove, wharf extension; Petit de Grat, breakwater repairs; Petit de Grat, dredging; Port Greville, breakwater repairs; Rose Bay, wharf; Sambro, wharf repairs; South Bar, groyne construction; South Side (Donald's Head), seawall repairs; Tiverton, wharf replacement; Wallace, wharf improvements; Weymouth North, dredging; Yarmouth, repairs to ferry terminal.

The following works, under contract, were unfinished at the end of the fiscal year:

Arrow Point, breakwater repairs; Baileys Brook, harbour improvements; Bridgewater, mooring dolphins; Broad Cove Marsh, wharf extension; Chapel Cove, groyne repairs; Chester Basin, wharf reconstruction; Chester Back Harbour, wharf; Clarkes Harbour, breakwater improvements; Dennis Point, harbour improvements; Dover, wharf reconstruction; Finlay Point, breakwater repairs; Forbes Point, breakwater extension; Grand Etang, harbour repairs and improvements; Halifax (Queen's Wharf), wharf repairs; Judique (Baxter's), harbour improvements; Larry's River, wharf reconstruction; Ledge Harbour, breakwater repairs; Long Cove, breakwater; Lower Woods Harbour, wharf replacement; McKay's Point, wharf construction; Main-a-Dieu, breakwater extension; Marion Bridge, wharf reconstruction; Mill Cove, breakwater reconstruction; New Haven, breakwater; Newellton, wharf improvements; North Sydney, harbour improvements; Pictou (Pier "C"), pier repairs; Pondville, breakwater reconstruction; Port Hood, breakwater; Port Morien, breakwater

reconstruction; St. Catherine's River, breakwater extension; Shelburne, wharf repairs; South Side (Donald's Head), breakwater repairs; Sydney, wharf improvements; Trout Cove, breakwater; Upper Port La Tour, harbour improvements; Westport, harbour improvements; Whale Cove, breakwater wharf; Yarmouth Bar, breakwater reconstruction.

Repairs and improvements were carried out by day labour or local agreement, at the following places:

Advocate Harbour; Anderson's Cove; Argyle Sound; Arisaig; Babin's Cove; Bailey's Brook; Battery Point; Baxter's Harbour; Bayswater; Black Point; Bridgewater; Broad Cove; Broad Cove Marsh; Brooklyn; Brule; Canada Creek; Cape John; Caplin Cove; Chester; Cheticamp Beach; Cheverie; Clarkes Harbour; Coffin's Island; Cole Harbour; Cripple Creek; Culloden; Digby; Dingwall; East Ferry; East Petpeswick; East Sandy Cove; Fall's Point; Flat Mud Island; Freeport; Friar's Head; Goose Bay; Grand Etang; Gulliver's Cove; Hampton; Hantsport; Harbourville; Head of Ship Harbour; Herring Cove; Hunts Point; Joggins; Jordan Ferry; L'Archeveque; Little Judique Ponds; Little Tancook; Long Cove; Lower East Pubnico; Louisburg; MacDonald's Cove; Mabou Harbour; Margaree Island; Margarettsville; Meteghan River; Murphy's Pond; MacLean's Point; New Harbour; New Haven; Noel; Osborne; Parker's Cove; Parrsboro; Pictou (Pier "A"); Pictou (Pier "B"); Pictou (Pier "C"); Pictou (Pier "C" - shed); Pictou (Hydrographic Building); Pictou Island; Pleasant Bay; Point Tupper; Port Dufferin; Port Hood; Port Hood Island; Port Maitland; Port Medway; Pugwash; Rockdale; St. Catherine's River; Sandy Cove; Saw Pit; Seal Island; Smelt Brook; Sober Island; Sonora; South East Cove-Tancook; South West Port Mouton; Spectacle Island; Stokes Head; Tenecape; Terrance Bay; The Hawk; Three Island Cove; Toney River; Walker's Cove; Walton; West Advocate; West Berlin; West Head; Weymouth North; Whitehaven; Windsor; Wreck Cove; Yarmouth.

Minor repairs were carried out at 200 places.

PRINCE EDWARD ISLAND

The following is a list of works, under contract, which have been completed during the year.

Beach Point, retaining wall; Borden, new wharf; Charlottetown Railway Wharf, hard surfacing; Charlottetown Railway Wharf, lighting improvements; Fishing Cove, breakwater extension; Georgetown Railway Wharf, heating and plumbing installation; Georgetown Railway Wharf, wharf reconstruction; Naufrage, breakwater extension; Red Head, retaining wall; Souris, breakwater repairs; Souris, landing extension; South River, repairs deck of quay wall; Summerside Railway Wharf, extension of heating system; Summerside Railway Wharf, hard surfacing; Summerside Railway Wharf, shed extension; Tignish, breakwater repairs; Vernon River, wharf extension; Wood Islands, reconstruction of fishermen's landing; Wood Islands, concrete pavement on ferry terminal; Wood Islands, timber pile fender system installation.

The following works, under contract, were unfinished at the end of the fiscal year:

Alberton Railway Wharf, wharf extension; Charlottetown Railway Wharf, warehouse improvements; Launching Pond, breakwater extension; Montague, wharf repairs; North Lake, extension to landing piers; West Point, breakwater extension;

Repairs and improvements were carried out by day labour or local agreement, at the following places:

Annandale; Basin Head; Bay Fortune; Belle River; Charlottetown Railway Wharf; Cranberry Wharf; Darnley Basin; Egmont Bay; Georgetown Queen's Wharf; Georgetown Railway Wharf; Graham's Pond; Higgin's Shore; Lower Montague; McAskills River; Montague; Naufrage; North Cardigan; Port Hill; Red Head; Rocky Point; Rustico Harbour; Rustico Little Harbour; Savage Harbour; St. Peters Harbour; Souris Railway Wharf; Sturgeon; Summerside (Holman's Wharf); Summerside Railway Wharf; Sutherland's Cove; Tignish; Tracadie Harbour; West Point; Wood Islands (Breakwater); Wood Islands (Terminal).

Minor repairs were carried out at 23 other places.

NEW BRUNSWICK

The following is a list of works, under contract, which have been completed during the year:

Baie St. Anne, wharf extension; Blue Cove, harbour improvements; Burnt Church, wharf repairs; Cape Bald, harbour improvements; Curry's Cove, breakwater extension; Grand Anse, breakwater repairs; Island River, harbour improvements; Little Shippigan, wharf repairs; Lower Neguac, wharf extension; Malloch's Beach, breakwater extension; Richibucto, wharf extension; St. Andrews, wharf repairs; St. Mary's, breakwater repairs.

The following works, under contract, were unfinished at the end of the fiscal year;

Back Bay, breakwater; Cocagne Bridge, repairs to wharf approach; Cummings Cove, harbour improvements; Dalhousie, wharf; Harshman's Brook, harbour improvements; Ingall's Head, harbour improvements; Leonardsville, breakwater; Lorneville, harbour improvements; Maces Bay, breakwater extension; North Head, breakwater-wharf replacement; Robichaud, wharf extension; Saint John (Negro Point), breakwater repairs; Seal Cove, breakwater extension; Stuarttown, breakwater; Wilson's Beach, breakwater-wharf extension.

Repairs and improvements were carried out by day labour or local agreement, at the following places:

Back Bay; Bathurst; Bay DuVin River; Campbellton; Caraquet; Cape Bald; Chatham; Chockfish; Digdeguash; Dipper Harbour; Escuminac; Island River; Letite; Little Lameque; Lorneville; Lower Caraquet; Lower St. Louis; Malloch's Beach; Miscou; Newcastle; North Head; Point Du Chene; Richardson; Richibucto; St. George; St. Martins; St. Nicholas River; St. Simon; St. Stephen; Seal Cove; Shippigan; Stonehaven; Stuarttown; Tracadie; Waweig; Websters; Welshpool; White Head; Wilsons Beach.

Minor repairs were carried out at 56 other places.

QUEBEC

The following is a list of works, under contract, which have been completed during the year:

Anse à Valteau, landing extension; Baie St-Paul, construction of a protection wall; Batiscan, protection works; Beloeil, reconstruction of guide piers and ice-breakers, also, construction of booms; Berthier Island, repairs to bridges; Cap aux Meules, repairs to breastwork; Cap-de-la-Madeleine, retaining wall; Champlain, retaining wall; Champlain Dry Dock (Lauzon), construction of concrete walls; Champlain Dry Dock (Lauzon), renewing windows; Champlain Dry Dock (Lauzon), replacement of a water heater; Chandler, wharf repairs; Clarke City, wharf repairs and dredging; Cloridorme, protection works extension; Dune du Sud, breakwater enlargement; Etang du Nord, pier construction;

Fryer's Island, damkeeper's residence; Gascons (Anse à Mercier), wharf improvements; Gaspé (Sandy Beach), construction of marine slipway; Gaspé (Sandy Beach), construction of steel cradle; Gaspé (Sandy Beach), lighting system; Grande-Vallée, construction of protection wall; Gros-Cap, construction of a roadway leading to slipway; Grosse-Ile, breakwater wharf; Hâvre Aubert, wharf repairs; Hâvre aux Maisons, improvements to landing; Indian Cove, wharf extension; Lanoraie, protection works; Mutton Bay, wharf; Natashquan, wharf repairs and enlargement; Newport (Rivière des Îlots), repairs to East breakwater; Notre-Dame de Pierreville, removal of causeway; Noyan, repairs to wharf; Pointe au Pic, protection works; Pointe au Pic, repairs to corner of wharf; Rimouski, asphalt pavement; Rivière au Renard, construction of a protection wall; Rivière au Tonnerre, harbour improvements (landing pier); Rivière du Loup, paving the river wharf (Pouliot Wharf); St. Augustin, completion of one-half of protection wall; St-Coeur de Marie, construction of a slipway; St-François du Lac, protection works; St-Ignace de Loyola, protection works; St-Jean, construction of booms; St-Jean I.O., construction of protection walls; St-Jean Port-Joli, wharf extension; St-Joachim de Tourelle (Anse des Quinze Collets), wharf extension; St-Joseph de St-Hyacinthe, retaining wall; St-Laurent I.O., construction of a protection wall; St-Mathias, road surfacing; St-Nicolas, construction of a stone and concrete protection wall; St-Romuald, construction of a concrete protection wall (Juvénat des Frères de l'Instruction Chrétienne); St-Romuald, construction of an extension to the concrete protection wall (Filtration Plant); St-Romuald, construction of protection work (Filtration Plant); Ste-Anne des Monts (Mont Albert), protection works; Ste-Félicité, reconstruction of protection walls; Ste-Monique de Honfleur, wharf reconstruction; Sept-Iles, retaining wall; Sorel, wharf improvements, also, retaining wall; Tadoussac (Anse à l'Eau), wharf improvements; Tête à la Baleine, wharf; Verchères, retaining wall.

The following works, under contract, were unfinished at the end of the fiscal year:

Bagotville, protection wall; Baie Comeau, shed improvements; Baie des Sables, construction and reconstruction of various protection works; Baie Ste-Catherine (Anse au Portage), wharf; Champlain Dry Dock (Lauzon), scraping and painting of floating caissons; Champlain Dry Dock (Lauzon), supply and installation of a new turbo-generator unit; Contrecoeur, retaining wall; Forestville, wharf repairs; Grande-Anse, two small wharves; La Malbaie, breakwater extension; Lavaltrie, protection works; Matane, retaining wall; Paspébiac, wharf reconstruction; Quebec, wharf extension (Queen's Wharf); Rivière au Tonnerre, installation of fendering system on wharf; Rivière aux Rats, wharf repairs; St-Gabriel de Brandon, wharf; St-Ours, protection works; St-Siméon, wharf repairs; St-Sulpice, wharf extension; Ste-Agathe des Monts, wharf; Ste-Marie de Beauce, construction of a protection wall; Sept-Iles, wharf; Tracy, retaining wall; Varennes, repairs to protection wall.

Repairs and improvements were carried out by day labour or local agreement at the following places:

Alma; Amos; Angliers; Anse à Beaufile; Anse à Brillant; Anse à Valteau; Anse du Ruisseau; Anse Millerand; Aurigny; Bagotville; Baie Comeau; Baie des Sables; Baie St-Paul; Baie Ste-Catherine; Barachois; Beupré; Belleterre; Berthier en Bas; Blanc Sablon; Bonaventure; Bonaventure-Est (Côte Freddy Bourdages); Bradore Bay; Brion Island; Cabano; Campbells Bay; Cap à l'Aigle; Cap aux Meules; Cap Chat; Cap des Rosiers (Rivière Whalen); Carleton; Chandler; Chicoutimi North; Clarke City; Cloridorme; Cloridorme (Anse-Brulé); Cross Point; Deschaillons; Deschambault; Desjardins; Entry Island; Etang du Nord; Fabre; Forestville; Fort Coulange; Fort William Wharf; Gascons (Anse à la Barbe); Gascons (Anse à Mercier); Gascons (Ruisseau Chapados);

Gaspé; Gaspé (Sandy Beach); Gatineau Point; Grande-Entrée; Grande-Grève; Grand-Lac Bois-Franc; Grande-Rivière; Grande-Rivière-Ouest; Grande-Vallée; Harrington Harbour; Hâvre St-Pierre; Hospital Bay; Ile aux Coudres (St-Bernard); Ile aux Coudres South; Jersey Cove; Kipawa; Lac Caron; Lac Chaud; Lac Chicobi; Lac des Grandes-Baies; Lac des Îles; Lac Gravel; Lac Labelle; Lac Quévillon; Lac Rémi; Lac Sagouay; Lac Ste-Marie; Lac Vert; L'Anglais (L'Ascension); Laniel; L'Anse St-Jean; La Petite-Rivière St-François; La Sarre; La Tabatière; Les Escoumains; Les Méchins; Lévis (C.N.R. Wharf); L'Islet; Louvicourt; Malbaie; Maria Capes; Marsoui; Masson; Matane; Matapédia; Méchins; Miguasha; Mingan; Moffette; Moisie; Mont Louis; Natashquan; Neuville; New Carlisle; Newport (Anse à Blondel); Newport (Rivière Anse aux Canards); Newport (Rivière des Ilots); Norway Bay; Notre-Dame du Nord; Osisko Lake (Rouyn); Oyster Pond; Pabos Mills (Anse aux Canards); Papineauville; Paspébiac; Percé; Percé (Anse du Nord); Péribonka; Petit-Méchins; Petit-Pabos; Petite-Madeleine; Petite-Rivière au Renard; Petite-Rivière-Est; Petite-Vallée; Pointe au Loup; Pointe au Loup-Marin; Pointe au Père; Point au Pic; Pointe-Jaune; Pointe aux Outardes; Pointe Lebel; Port Daniel-Est; Portneuf; Premier-Etang; Quyon; Ragueneau; Rapide No. 7; Rimouski; Rivière à la Martre; Rivière au Renard; Rivière au Tonnerre; Rivière du Loup; Rivière Ouelle (Pointe aux Orignaux); Rivière St-Paul; Roberval; Ruisseau Leblanc; St-André Avellin; St-André de Kamouraska; Ste-Anne du Lac; St-Antoine de Tilly; St-Augustin (Saguenay); St-Augustin (Portneuf); St-Charles de Caplan; St-Charles de Caplan (Ruisseau Watt); St-Coeur de Marie; St-Georges de Malbaie; St-Georges de Malbaie (Flat Brook); St-Godefroi; St-Henri de Taillon; St-Irénée; St-Jean (I.O.) (protection); St-Jean (I.O.) (wharf); St-Jean Port-Joli; St-Jérôme (Métabetchouan); St-Joachim de Tourelle (Côte Neuve); St-Joseph de la Rive; St-Juste du Lac; St-Laurent (protection) St-Maurice de l'Echourie; St-Maurice de l'Echourie (Grand-Ruisseau); St-Maurice de l'Echourie (Grande-Anse); St-Michel de Bellechasse (wharf); St-Michel de Bellechasse (protection wall); St-Omer; St-Siméon; St-Siméon-Est; Ste-Véronique; St-Yvon; Ste-Anne de Beaupré; Ste-Anne des Monts; Ste-Félicité; Ste-Marthe; Ste-Pétronille (protection wall); Ste-Rose du Nord; Ste-Thérèse de Colombier; Sacré-Coeur; Sept-Iles (Clarke Steamship Shed); Sept-Iles (first wharf); Sept-Iles (Pointe aux Basques); Sept-Iles (protection wall); Sillery; Tadoussac (Anse à l'Eau); Tadoussac (Anse Tadoussac); Taschereau; Thurso; Trois-Pistoles; Ville Marie.

Minor repairs were carried out at 85 other places.

ONTARIO

The following is a list of works, under contract, which have been completed during the year:

Amherstburg (Fort Malden Museum), protection wall; Amherstburg, wharf wing wall; Cedar Point, wharf repairs; Colchester, harbour improvements (breakwater and dredging); Colchester, resurfacing of wharf; Collingwood, breakwater repairs; Fort Frances, wharf extension; Goderich, catwalk extensions; Hamilton, Wellington Street wharf extension; Hollow Lake, wharf improvements and extension; Huntsville, wharf repairs; Kenora, construction of new wharf; Kingston, wharf repairs; Leamington, harbour improvements (breakwater-Stage 1); Macdiarmid, wharf reconstruction; Mitchell's Bay, wharf repairs and improvements (steel sheet pile wall); Nanticoke Creek, breakwater repairs; Nipigon, wharf reconstruction; Nipigon, improvements (construction of a rubble mound training wall); Oshawa, breakwater repairs; Oxenden, wharf repairs; Parry Sound, construction of floats; Pelee Island, harbour improvements (timber jetty); Perley Bridge, approach; Pike Creek, improvements (dredging and training wall); Port Burwell, harbour repairs and improve-

ments (pile clusters); Port Credit, wharf construction; Port Credit, breakwater construction; Port Hope, repairs to East Pier; Port Rowan, breakwater extension; Port Stanley, harbour repairs and improvements (renewal of fenders); Port Stanley, harbour repairs and improvements (steel sheet pile wall); Pointe au Baril, wharf reconstruction; Sarnia, harbour repairs and improvements (reconstruction of dolphins and walkways); Saugeen River (Southampton), repairs to south pier; Sault St. Marie, construction of floating tenders; Sutton (Black River), reconstruction training wall (Stage 1); Thornbury, repairs to retaining wall; Tobermory, repairs to harbour works (glance boom); Toronto, repairs to breakwater (HMCS York); Wheatley, harbour improvements (wharf reconstruction); Windsor, replacement of pile clusters;

The following works, under contract, were unfinished at the end of the fiscal year:

Big Bay, wharf repairs; Bruce Mines, wharf reconstruction; Cache Bay, wharf construction; Cedar Beach, harbour improvements (training walls and dredging); Cobourg, repairs to east pier; Cobourg, renew waling; Gananoque, wharf reconstruction; Gore Bay, wharf construction; Grand Bend, harbour improvements (steel sheet pile wall); Hamilton (Ship St. Terminal No. 3), wharf construction; Hamilton (Strathearne Ave. Stage 2), wharf construction; Hilton Beach, wharf reconstruction; Huntsville, wharf repairs; Mallorytown, wharf reconstruction; Mattawa, wharf construction; Midland, resurfacing of wharf; Morinus, wharf repairs; Orillia, wharf construction; Owen Sound, wharf repairs; Parry Sound, construction of floats; Parry Sound (Smelter Wharf) wharf repairs; Pelee Island, harbour improvements (lighting-wharf and warehouse); Penetanguishene, wharf repairs and reconstruction of floats; Port Bruce, repairs to retaining wall; Port Bruce, harbour improvements (rubble shore protection); Port Colborne, breakwater repairs; Port Maitland, repairs to piers; Puce, improvements (training wall and dredging); Sarnia, harbour repairs and improvements (improved storage accommodation); Southampton (Chantry Island), breakwater demolition; Sutton (Black River), reconstruction of training wall (Stage 2); Turkey Point, repairs to wharf; Walpole Island, shore protection; Whitby, reconstruction of west pier; Windsor, boat landing, dredging and repairs to R.C.M.P. building; Windsor, pile clusters and repairs to warehouse.

Repairs and improvements were carried out by day labour or local agreement at the following places:

Amethyst Harbour; Bear Island; Beaverton; Burditt Lake; Burlington Channel; Chippewa Park; Christie Inlet; Connaught; Crow Lake; Cumberland; Cyclone Island; Dryden; Fort Frances; Fort William; Fox Point; Gananoque; Gawa Bay; Goderich; Go Home Bay; Grand Bend; Green Island (Rideau Falls); Gull Rock; Honora; Horseshoe Lake; Howe Island; Huntsville; Hurkett; Innisfil Park; Ivy Lea; Kahshe Lake (Nagaya Beach); Keewatin; Kenora; Kingston; Lake Despair; Little Current; Long Beach (Cameron); Loon Lake; Midland; Miller's Rapids; Minaki; Mohr's Landing; Moosonee; Morson; Nestor Falls; New Liskeard; Orillia; Oshawa; Parry Sound; Picton; Pike Creek Point au Baril; Port Arthur (Boathouse); Port Burwell; Port Dover; Port Elgin; Port Hope; Port Rowan; Richards Landing; Rockport; Sabaskong Bay; Sans Souci; Sand Point; Sarnia; Sault Ste-Marie; Shebandowan; Sioux Narrows; Spanish; Sturgeon Falls; Sundridge; Taylors Bay; Wabigoon; Walpole Island; Wheatley; White Side and Windermere.

Minor repairs were carried out at 120 other places.

MANITOBA

The following is a list of works, under contract, which have been completed during the year:

McBeth Point, breakwater-wharf; St. Andrew's Lock and Dam, painting steelwork; Selkirk, wharf reconstruction; Wasagaming, wharf reconstruction.

Repairs and improvements were carried out by day labour or local agreement at the following places:

Arnes; Channing; Cormorant Lake; Duck Bay; Gimli; Grand Rapids; Steep Rock and Winnipeg Beach.

Minor repairs were carried out at four other places.

SASKATCHEWAN

Repairs and improvements were carried out by day labour or local agreement at the following places:

Big River; Delaronde Lake and Dore Lake.

ALBERTA AND NORTHWEST TERRITORIES

The following is a list of works, under contract, which have been completed during the year:

Hay River, N.W.T., reconstruction of haulout ways; Lac la Biche, Alta., wharf reconstruction; Ma-Me-O Beach, Alta., wharf reconstruction; Sylvan Lake, Alta., wharf reconstruction; Waterways, Alta., bank protection work; Yellowknife, N.W.T., wharf construction.

The following works, were unfinished at the end of the fiscal year:

Cambridge Bay, N.W.T., wharf construction; Inuvik, N.W.T., wharf construction; Tuktoyaktuk, N.W.T., wharf construction; Wabamun, Alta., wharf construction; Yellowknife, N.W.T., seaplane base reconstruction.

Repairs and improvements were carried out by day labour or local agreement at the following place:

Hay River, N.W.T.

Minor repairs were carried out at eight other places.

BRITISH COLUMBIA

The following is a list of works, under contract, which have been completed during the year:

Bella Bella, harbour improvements (breakwater); Brunette River, approach repairs and float reconstruction; Burns Lake, float renewal; Campbell River, harbour improvements; Chemainus, improvements; Comox, breakwater repairs; Courtenay River, bank protection; Deep Bay, boat harbour repairs; Dodge Cove, float extension; Esquimalt, refit of Jetty "B"; Esquimalt, reconditioning first graving dock; Esquimalt Dry Dock, rehabilitation of electrical system; Fanny Bay, approach and wharf repairs; Gabriola Centre, wharf reconstruction; Ganges, float extension and wharf repairs; Haney, float reconstruction; Harrison Lake, wharf and float repairs; Harrison Lake, breakwater; Harrison River, control structures; Heriot Bay, float extension; Kelsey Bay, improvements; Kitimat Mission, construction of catwalk and dolphin; Kitkatla, approach and floats; Ladner, harbour improvements; Ladysmith, boat harbour; McIvor's Landing, float renewal; Masset (New), improvements; Nanaimo, assembly wharf extension; Nanaimo, assembly wharf paving; Nanaimo (Farmers Landing), wharf reconstruction and float renewal; Nanaimo (Pacific Biological Station), water main; Nanaimo (Pacific Biological Station), water system alterations; New Westminster (Government Wharf), fender repairs; New Westminster (Storesyard Wharf), deck renewal; New Westminster (Annacis Slough), pontoon slipway; New Westminster (Fisheries Station), foundation repairs; New Westminster Railway Bridge, rehabilitation of electrical system; New Westminster Railway Bridge, swing span repairs; Porpoise Bay, wharf repairs; Port Alberni,

assembly wharf repairs; Prince Rupert (Fairview Bay), harbour improvements; Prince Rupert (Fairview Bay), electrical outlets; Prince Rupert (Sourdough Bay), repairs to departmental wharf; Queen Charlotte City, wharf repairs and float renewal; Retreat Cove, wharf reconstruction; Sea Otter Cove, construction of mooring buoys; Seymour Narrows, removal of Ripple Rock; South Pender wharf reconstruction; Steveston Cannery Channel, dam weir; Sullivan Bay, float and shed; Ucluelet West, float reconstruction; Vananda, harbour improvements; Vancouver, (False Creek Fishing Harbour), comfort station; Vancouver (False Creek Fishing Harbour), fence; Vancouver, (False Creek Fishing Harbour), sprinkler system; Vancouver, (False Creek Fishing Harbour), shed partitioning; Vancouver, (False Creek Fishing Harbour), electrical extension; Victoria (Johnson Street), wharf and float repairs; Wiah Point, exploration survey.

The following works, under contract, were unfinished at the end of the fiscal year:

Ahousat, wharf repairs; Alert Bay, breakwater improvements; Bella Bella, harbour improvements (wharf repairs); Esquimalt, renewal of motor launch floats; Esquimalt, float renewal; Esquimalt Dry Dock, parking lot; Gibsons Landing, harbour improvements; Harrison River Rapids, log boom guide renewal; Kincolith, approach and floats; Nanaimo Assembly Wharf, improvements; Nanaimo (Pacific Biological Station), reconstruction of salmon tanks; Ocean Falls, floats; Okanagan Landing, breakwater; Prince Rupert (Fairview Bay), float renewal; Prince Rupert (Sourdough Bay), boat grid construction; Sidney, ferry terminal; Sointula (Rough Bay), breakwater; Sooke, wharf reconstruction Victoria (Eric Street), harbour repairs and improvements; Whitehorse, sea-plane landing; Winter Harbour, wharf repairs; Yuculta Landing, approach superstructure renewal and float repairs.

Repairs and improvements were carried out by day labour or local agreement at the following places:

Bamfield West; Bella Bella; Bella Coola; Billings Bay; Boswell; Boundary Bay; Brownsville; Burton; Cape Mudge; Carrolls Landing; Columbia River Narrows; Comox; Eastbourne; Esquimalt; Ethelda Bay; Evans Bay; Ford's Cove; Fraser River (Spaghetti Point); Fulford Harbour; Gambier Harbour; Gows Landing; Haysport; Irvines Landing; Jeune Landing; Kaslo; Keats Island; Kincolith; Kingsgate; Kuskanook; Lund; Madeira Park; Metlakatla; Minstrel Island; Morse Creek; Mount Gardner Park; Nakusp; Nanaimo Assembly Wharf; Nanaimo Pacific Biological Station; Nelson; New Brighton; New Westminster Fisheries Station; New Westminster Storesyard; Ocean Falls; Oona River; Penticton; Port Alberni Assembly Wharf; Port Essington; Port Hardy; Port Renfrew; Prince George; Quathiaski Cove; Quatsino; Queen Charlotte City; Roberts Bay; Shoal Bay; Sidney; Smither's Landing; Snug Cove; South Pender Island; Steveston; Sturdies Bay; Surge Narrows; Thetis Island; Ucluelet West; Vancouver (False Creek); Vancouver (Spanish Banks); Westview; Williamsons Landing; Winter Harbour; Zeballos.

Minor repairs were carried out at approximately 150 other places.

HARBOURS AND RIVERS

CONTRACT AND DAY LABOUR DREDGING, 1958-59

NEWFOUNDLAND

Dredging operations were carried out at the following locations:

Bonavista; Broom Point; Daniels Harbour; Greenspond; Griquet; Gull Marsh; Harbour Grace; Lawn; Long Pond (Manuels); Martin's Point; Marysvale; Newtown; Newtown (Sloop's Run Tickle); Ochre Pit Cove; Pike's Arm; Port aux Basques; Red Island; St. Phillip's; St. Shott's; Sally's Cove; Seal Cove (St. John's East).

A total of 20,470 cubic yards scow measurement was removed. In addition 591,697 cubic yards place measurement was removed consisting of 191,525 cubic yards Class "A" material which had to be drilled, blasted and removed and 400,172 cubic yards Class "B" material.

NOVA SCOTIA

Dredging operations were carried out at the following locations:

Advocate Harbour; Alder Point; Andersons Cove; Arisaig; Bailey's Brook; Ballantyne's Cove; Battery Point; Black Point; Blandford; Broad Cove; Canada Creek; Caribou; Carleton Village; Chapel Cove; Chegoggin Dyke; Church Point; Clyburn Brook; Comeauville; Cribbin's Point; Dingwall; Finlay Point; Glace Bay; Grand Etang; Hampton; Hantsport; Harbourville; Inverness; Jersey Cove; Kelly's Cove; Livingstone's Cove; Lower Burlington; Lower Sandy Point; MacDonald's Cove; Margaretsville; McKay's Point; Meteghan; Northport; Ogden's Pond; Parker's Cove; Parrsboro; Petit de Grat; Pictou Island; Port Greville; Port Williams; Ragged Head Pond; St. Francis Harbour; Sandford; Saulnierville; Short Beach; Skinner's Cove; Smithville; Spencer's Island; Stonehurst; Toney River; Walker's Cove; Walton; Weymouth North; White's Cove; Windsor; Yarmouth; Yarmouth Bar.

A total of 495,700 cubic yards was removed.

PRINCE EDWARD ISLAND

Dredging operations were carried out at the following locations:

Fishing Cove; Graham's Pond; Howard's Cove; Miminegash; Skinner's Pond.

A total of 105,901 cubic yards, place measurement, was removed.

NEW BRUNSWICK

Dredging operations were carried out at the following locations:

Bathurst; Bay DuVin River; Buctouche; Campbellton; Caraquet; Dipper Harbour; Harshman's Brook; Little Pokemouche Gully; Malloch's Beach; Middle Caraquet; Point Sapin; Saint John (Courtenay Bay); St. Marys (Kent); Seely's Cove.

A total of 752,697 cubic yards was removed.

QUEBEC

Dredging operations were carried out at the following locations:

Baie St. Paul; Barraute (Courville River); Barraute (Laflamme River); Barraute (Tourville River); Beaconsfield; Berthierville; Bourlamaque and Sabourin Rivers; Cap Chat; Cap de Rosiers (Riviere Whalen); Capucins; Cullen's Brook; Dagenais River; Forestville; Grand Vallee (Anse a Mercier); Gros Cap; Grosse Roche; Hospital Bay; Iserhoff River; Jersey Cove; Lac Brochet and Lac Marie Louise; Lac Castor and Lac Mulet; Lac Dasserat; Lac Long (Duhamel); Lac Malone and Lac Dick; La Sarre River; Little English Bay (Baie Comeau); Malartic River; Matane; Montebello; Nominique; Notre-Dame-de-Pierreville; Paspebiac; Pentecost Bay; Petit Mechins; Petite Nation River; Petite Riviere Est; Petite Riviere St. Francois; Pointe a la Fregate; Ragueneau; Remigny (Lac Barriere and Lac des Quinze); Rimouski; Riviere a Claude; Riviere Caplan; Ruisseau a Patate (Ste. Anne des Monts); Ruisseau des Olives; St. Francis River; St. Joachim de Tourelle; St. Joachim de Tourelle (Anse a Jean); St. Lawrence River (Sorel); St. Maurice River; St. Yvon; Ste.

Anne des Monts; Ste. Anne des Monts (Mont Albert); Ste. Felicite; Ste. Flavie; Ste. Therese de Colombier; Sorel Harbour; Taschereau River; Trois Pistoles; Turgeon River; Yamachiche River.

A total of 414,212 cubic yards was removed.

ONTARIO

Dredging operations were carried out at the following locations:

Amherstburg; Bay of Quinte; Cedar Beach; Cedar Point; Christian Island; Cobourg; Colchester; Collingwood; Fort William (Kaministiquia River); Fort William (Westfort Turning Basin); Frenchman's Bay; Goderich; Hamilton (Strathearne Ave.), approach, turning basin and slip; (James St.), slip to Terminal Wharf No. 2; Honey Harbour; Indian Point; Jordan Harbour; Kaministiquia River; Kingsville; Lake Simcoe (Jackson's Point, Neilley's, Nesbitts, Pefferlaw River, Thorah Island); Meaford; Montreal River; Morpeth; Oshawa; Owen Sound; Pike Creek; Point Traverse; Port Arthur (Main Harbour Centre and Main Harbour South); Port Burwell; Port Credit; Port Dover; Port Hope; Port Rowan; Port Stanley; Puce River; Rondeau (Erieau); St. Clair River; Salmon Point; Sharbot Lake; Shequandah; Thames River; Toronto (Eastern Channel, Western Channel, Areas "C", "D" & "E" inside Harbour) Wheatley; Whitby; Windsor.

A total of 4,465,760 cubic yards was removed.

MANITOBA

Dredging operations were carried out at the following location:

Icelandic River.

BRITISH COLUMBIA

Dredging operations were carried out at the following locations:

Bella Bella; Brownsville; Delkatla Slough; Douglas Channel (Harrison Lake); Fraser River, Channels 1, 2, 3 and 4; Morey Channel, Sumas to Hope (Fraser River); Nanaimo Assembly Wharf; New Westminster (Brunette River); New Westminster, storesyard; Oona River; Oyama; Salmon Arm; Squamish; Thetis-Kuper Channel; Vancouver (False Creek). River clearing operations were carried out on: Arrow Lakes; Dease River; Duncan River; Fraser River (Chilliwack); Fraser River (lower reaches); Harrison Lake; Kootenay Lake; Kootenay River; Nass River; Skeena River; Stikine River; Tachi River; Taku River.

DREDGING BY DEPARTMENTAL DREDGES, 1958-59

NEWFOUNDLAND

Dredge P.W.D. No. 400 operated at Aquaforte; Cartwright; English Harbour; Fortune; Garnish; Grand Bank; Green's Harbour; Harbour Breton; Labrador; Milltown; Port au Bras; St. Albans; Trinity Bay. A total of 25,250 cubic yards, scow measurement, was removed.

Dredge P.W.D. No. 20 operated at Long Pond (Manuels); Springdale and Twillingate. A total of 81,080 cubic yards, scow measurement, was removed.

Drill Boat No. 401 was leased to the J. P. Porter Co. Ltd. for work at Port aux Basques.

PRINCE EDWARD ISLAND

Dredge Pownal No. 2 operated at Egmont Bay, Murray Harbour, Souris, and Wood Islands. A total of 28,293 cubic yards, scow measurement, was removed.

Dredge No. 12 operated at Wood Islands. A total of 87,236 cubic yards, place measurement, was removed.

Dredge No. 14 operated at Beach Point, and Vernon. A total of 20,618 cubic yards, place measurement, was removed.

Dredge No. 25 operated at Charlottetown, Judes Point, Morell, Panmure Island, Skinner's Pond, and Tignish. A total of 13,425 cubic yards, scow measurement, was removed.

NOVA SCOTIA

Dredge No. 15 operated in the LaHave Islands redredging the numerous channels in the area. A total of 20,575 cubic yards was removed.

Dredge No. 16 operated at Shelburne, Yarmouth Bar, Pinkney's Point and Little River Harbour. A total of 10,373 cubic yards was removed.

Dredge No. 18 operated at Mabou, Port Hood, Murphy's Pond, Port Hood Island, Three Island Cove and Little Judique Ponds. A total of 8,925 cubic yards was removed.

Dredge No. 19 operated at Little Harbour, Port Dufferin, East Petpeswick, Herring Cove and Eastern Passage. A total of 13,855 cubic yards was removed.

Dredge No. 21 operated at Yarmouth Harbour and Channel and removed an estimated 360,897 cubic yards.

NEW BRUNSWICK

Dredge No. 12 operated at Val Comeau, Miscou Gully and Shippigan. A total of 81,246 cubic yards, place measurement, was removed.

Dredge No. 23 operated at Miscou Harbour, Shippigan and St. Marys. A total of 44,011 cubic yards, scow measurement, was removed.

Dredge No. 24 operated at Caissie Cape, Chockfish, Point Sapin, Richibucto Cape and Robichaud. A total of 38,560 cubic yards, scow measurement, was removed.

QUEBEC

Dredge No. 130 operated at Baie Comeau (Baie du Moulin), Ile aux Coudres and Quebec Queen's Wharf. A total of 145,000 cubic yards, scow measurement, was removed.

Dredge P.W.D. No. 128 operated at Sandy Beach, (Anse au Griffon), Grande Riviere, Gascons, Newport Island, Petite Riviere Est, and Anse a Valleau. A total of 25,845 cubic yards, scow measurement, was removed.

Dredge P.W.D. No. 129 operated at Havre Aubert, Hospital Bay, Dune du Sud, Cap aux Meules, Pointe Basse. A total of 43,160 cubic yards, scow measurement, was removed.

Hydraulic Dredge P.W.D. No. 125 operated at Havre Aubert, and Hospital Bay. A total of 14,370 cubic yards, place measurement, was removed.

P.W.D. Mobile Crane operated at Anse au Griffon, Petite Vallee, Marsoui, Anse a Beaufils, Anse a la Barbe, and St. Simeon. A total of 9,984 cubic yards, place measurement, was removed.

ONTARIO

Dredge P.W.D. No. 116 operated at Port Burwell, Ontario. A total of 175,084 cubic yards, scow measurement, was removed.

MANITOBA

Dredge Red River II (No. 201) operated at Red River Mouth and Winnipeg Beach. A total of 77,467 cubic yards, dredge measurement, was removed.

Dredge No. 205 operated at Dauphin River, George's Island, Grassy Narrows, Little Tamarac, Lockport, Lynx Bay and Selkirk Slough. A total of 46,172 cubic yards, scow measurement, was removed.

Dredge No. 210 operated at Devil's Point, Duck Bay, Mossey River and Salt Point. A total of 17,960 cubic yards, scow measurement, was removed.

ALBERTA AND NORTHWEST TERRITORIES

Dredge No. 250 operated in the delta of the Athabasca River, Alta. A total of 145,786 cubic yards, place measurement, was removed.

Dredge No. 251 operated at Wrigley Harbour and Lobstick Island, N.W.T. A total of 14,680 cubic yards, scow measurement, was removed.

Dredge No. 252 operated in the Athabasca River and in the delta of the Athabasca River, Alta. A total of 93,560 cubic yards, place measurement, was removed.

Dredge No. 253 operated at Bell Rock and Deadman's Island, N.W.T. A total of 36,303 cubic yards, place measurement, was removed.

BRITISH COLUMBIA

Dredge 303 "Fruhling" operated on the Fraser River at Steveston 0 to 6 and 16 to 18 buoys; Steveston Cannery Channel, Steveston Cut, Searle Elevator, North Arm Channel No. 34, Nanaimo Assembly Wharf. A total of 644,346 cubic yards, place measurement, was removed.

Dredge 322 operated on the Fraser River at the various channels of the North Arm and at Bedford Channel, McMillan Island, Steveston Cannery Channel, and English Bay (Vancouver). A total of 1,323,605 cubic yards, place measurement, was removed.

Dredge 311 "Arrow Lakes" operated at Columbia River Narrows and a total of 27,390 cubic yards, place measurement, was removed.

Dredge 324 operated on the South Thompson River and a total of 212,582 cubic yards, place measurement, was removed.

BRIDGES

Maintenance and repairs were carried out during the year to the following bridges on behalf of the Development Engineering Branch:

Clair, N.B.; Edmundston, N.B.; St. Leonard, N.B.; Berthier Islands Bridges, P.Q.; Calumet-Bryson, P.Q.; Chapeau Bridge, P.Q.; Notre-Dame du Nord Bridge, P.Q.; Papineauville Bridge, P.Q.; Desjoeachims Bridge, Ont. and P.Q.; Perley Bridge, Ont. and P.Q.; Portage du Fort Bridge, Ont. and P.Q.; Burlington Channel, Ont.; Kingston (La Salle Causeway), Ont.; Ottawa City Bridges, Ont.; Shellmouth, Man.; New Westminster, B.C.; New Westminster Railway Bridge, B.C.

DAMS

The following dams were in operation during the year:

Fryer's Island Dam; French River Dams; Latchford Dam; Quinze Dam; Temiskaming Dams; St. Andrew's Lock and Dam; Lewes River Dam; Okanagan Lake Control Dam; Skaha Lake Control Dam.

DRY DOCKS

The Champlain Dry Dock was occupied for 544 boat-days by 34 ships of a total of tonnage of 145,709 tons.

The Lorne Dry Dock was occupied for 343 boat-days by 23 ships of a total tonnage of 53,621 tons.

The Kingston Dry Dock was occupied for 296 days by ships of a total tonnage of 62,950 tons.

The Selkirk Marine Repair Slip was occupied for 262 days by 21 ships of a total tonnage of 2,352.2 tons.

Esquimalt Dry Dock—Twenty-five vessels were docked for repairs, cleaning and painting; the total tonnage being 257,879 tons. The dock was occupied 151 days, including Sundays and holidays. Seventy-five vessels were moored at the landing wharf and jetty; the total number of days being 756 and the total tonnage 447,803 tons.

STATEMENT OF FERRY LICENCES IN FORCE
DURING THE FISCAL YEAR ENDING MARCH 31, 1959

Alfred, Ont.—Montebello, Que.....	\$15.00
Courtright, Ont.—St. Clair, Mich.....	25.00
Cumberland, Ont.—Masson, Que.....	10.00
Fitzroy Harbour, Ont.—Quyon, Que.....	125.00
Kingsville, Ont.—Sandusky, Ohio.....	25.00
La Passe, Ont.—Fort Colonge, Que.....	10.00
Niagara Falls, Ont.—Niagara Falls, N.Y.....	1.00
Port Lambton, Ont.—Roberts Landing, Mich.....	25.00
Prescott, Ont.—Ogdensburg, N.Y.....	1.00
Rainy River, Ont.—Baudette, Minn.....	1.00
Rockcliffe, Ont.—Gatineau Point, Que.....	25.00
St. Andrews, N.B.—Robbinston, Maine.....	5.00
Sand Point, Ont.—Norway Bay, Que.....	10.00
Sault Ste. Marie, Ont.—Sault Ste. Marie, Mich.....	100.00
Sombra, Ont.—Marine City, Mich.....	1.00
Stag Island, Ont.—Marysville, Mich.....	10.00
Walpole Island, Ont.—Algoma, Mich.....	25.00

NOTE

Sarnia, Ont.—Port Huron, Mich.—Licence discontinued on December 31, 1957.

DEVELOPMENT ENGINEERING BRANCH

G. B. Williams, Chief Engineer

The principal activities during the year in the three divisions of the Branch are summarized below. The tables commencing on Page 38 give the details of the various operations.

Highways Division

The functions of this Division may be classed under two main categories—first, the implementation of the Trans-Canada Highway Agreements and secondly, highway construction in the National Parks and Northwest Territories and the Yukon.

The Trans-Canada Highway Act, which was enacted in December, 1949, provided for the Federal Government to enter into Agreements with the Provinces and to contribute up to fifty per cent of the cost of construction of the Trans-Canada Highway, including construction costs prior to the passage of the Act, with federal contributions limited to \$150,000,000. No contributions were to be made in respect of construction costs incurred after the expiration of a period of seven years following the commencement of the Act.

It was apparent in 1955 that completion of the highway was not feasible by the expiration date of the Act. Consequently, an Act to amend the Trans-Canada Highway Act received Royal Assent on June 8, 1956, which extended the construction period to December 31, 1960. Other provisions of this Act included an increase in contributions from fifty per cent to ninety per cent on one-tenth of the mileage of the highway in each Province and an increase in the maximum amount that Canada might contribute, to \$250,000,000. New Agreements based on the provisions of these amendments were entered into with the following Provinces:

Newfoundland.....	November 19, 1956
Prince Edward Island.....	June 25, 1956
Nova Scotia.....	September 4, 1956
New Brunswick.....	June 8, 1956
Ontario.....	July 27, 1956
Manitoba.....	June 8, 1956
Saskatchewan.....	June 8, 1956
Alberta.....	June 22, 1956
British Columbia.....	December 6, 1956

During the course of the past year it became apparent that the total of \$250,000,000, which had been authorized in 1956, would be insufficient to cover the cost of completing the highway. Consequently, a second Amendment to the Trans-Canada Highway Act, which provided for an increase of \$100,000,000 in the amount of the Federal contribution to the cost of constructing the highway, was passed by Parliament and received Royal Assent on March 20, 1959. The aggregate limit of the funds available for expenditure by Canada under the Act and the Amendments is now \$350,000,000.

The provision for an additional 40% contribution by Canada has added impetus to the provincial construction programs, and excellent progress was made in all Provinces. In the case of Saskatchewan work had virtually been completed the previous year and the highway had been officially opened.

Full details covering the progress of construction, commitments accrued and payments made to each Province under the Agreements may be found in the Report of Proceedings under the Trans-Canada Highway Act for the fiscal year ended March 31, 1959.

The Highways Division also acts as technical adviser to the Department of Northern Affairs and National Resources, in connection with the Federal Roads to Resources program. Under this program agreements are being entered into with each of the participating Provinces covering Canada's contribution to the cost of constructing resources development roads. The extent of the Federal contribution is 50% of the cost of constructing approved roads up to a maximum \$7,500,000 for each Province. The work is processed and supervised by engineers of the Division in accordance with the procedure now prevailing for work under the Trans-Canada Highway Act.

In addition, this Division has direct responsibility for the construction of the Trans-Canada Highway through the National Parks.

During the year in Terra Nova National Park the entire mileage of the Trans-Canada Highway was under grading contract and it is now possible to drive on the route of the highway throughout this Park. Three reinforced concrete arch culverts were under construction at Salton's Brook, Southwest Brook and Bread Cove, as well as a concrete bridge at Big Brook. Two contracts were awarded for the crushing and stock piling of granular base course.

In Banff National Park in Alberta a three-inch bituminous stabilized base course was completed over the entire highway through this Park. All remaining bridges and overpasses were completed with the exception of the overpass and grade separation at Norquay Junction for which a contract was awarded. A contract was also awarded for crushing the bituminous concrete aggregates for the final paving of the highway.

In Yoho National Park contracts were completed covering the bituminous stabilized base course treatment over all of the Trans-Canada Highway in this Park. A three-span bridge over the Kicking Horse River and two three-span overpasses over the Canadian Pacific Railway were completed. A contract was awarded for the crushing of bituminous concrete aggregates for the final paving of this section of the highway.

It is now possible to drive from the east gate of the Banff National Park to the west gate of the Yoho National Park on a first class paved highway.

The clearing and grubbing of the entire route of the Trans-Canada Highway through Glacier National Park was completed during the year and six grading contracts covering all mileage of the highway in this park were awarded. Contracts were also awarded for two bridges crossing the Illecillewaet River, as well as for a reinforced concrete arch culvert at Mile 16.61. In addition, an overpass of the Canadian Pacific Railway was undertaken at Mile 18.54, as well as bridges at Loop Creek, Mile 18.3 and Beaver River, Mile 6.07. At Mile 8.70 of the highway in Glacier National Park a tunnel is being driven to divert Bear Creek in order to provide a better alignment of the highway. This completes the bridge program with the exception of two further crossings of the Illecillewaet River, and tenders were called in the latter part of the year for these structures.

In Mount Revelstoke National Park clearing and grubbing operations were completed on the seven and one-half miles of highway through this Park and a contract was awarded for the grading of this section of the highway. Contracts were also awarded for the construction of a concrete arch culvert over Glachnacudiann Creek, a four-span bridge over Silver Creek and a reinforced concrete overpass at the intersection of the Trans-Canada Highway and the entrance road to Mount Revelstoke National Park at Revelstoke, B.C.

Details of the progress on the construction of the Trans-Canada Highway in these National Parks are contained in the accompanying tables.

ROADS IN NATIONAL PARKS AND
NORTHWEST TERRITORIES AND YUKON

The Highways Division is also responsible for the construction of major roads for the Department of Northern Affairs and National Resources.

During the year in the National Parks, construction and surveys continued on the Gulf Shore Road in Prince Edward Island National Park; on the Cabot Trail in Cape Breton Highlands National Park; on the Banff-Jasper Highway in Banff and Jasper National Parks; on the Banff-Windermere Highway in Kootenay National Park and on the Emerald Lake Road in Yoho National Park. Details of progress on the contracts awarded are given in the accompanying tables. Location surveys in connection with the relocation of the highway from the East Gate of Jasper National Park to the Yellowhead Pass were carried out as far as Geikie and clearing projects were undertaken by day labour forces under the supervision of the National Parks Branch during the winter of 1958-59.

In the Eastern National Parks location surveys were carried out between Mile 23 and Mile 34 on the Cabot Trail in Cape Breton Island National Park. In Prince Edward Island National Park the site investigation was completed on the Rustico Harbour Bridge and the structural design of the crossing is now underway.

In the western National Parks location surveys were completed on the Banff-Jasper Highway from Mile 82 to Mile 125, and pre-engineering was continued on the remaining twenty miles to Jasper Townsite. On the Banff-Windermere Highway, engineering surveys were in the process of completion on the last ten miles through Sinclair Canyon. In addition, in Waterton Lakes National Park location surveys were completed on the Red Rock Canyon Road and on the Chief Mountain Highway. Other surveys and pre-engineering were carried out on highways in Prince Albert National Park in Saskatchewan and in Riding Mountain National Park in Manitoba.

In the Northwest Territories construction and surveys continued on the extension of the road which is to link the Mackenzie Highway with Yellowknife. The first eighty-two miles of this extension were completed as were the first thirty-one miles of this road northerly from Fort Providence. In March two contracts were awarded covering the construction of the remaining 106 miles to Frank's Channel. Between Yellowknife and Frank's Channel crushed rock surfacing of the road was completed for the first twenty-five miles, and the remaining thirty-eight miles were under construction. Clearing continued on seventy-five miles of road from Peace Point over to the 5th Meridian in Wood Buffalo National Park, and a contract was let for the grading and surfacing of 22.7 miles of road between Fort Fitzgerald and Bell Rock.

The location of the Marion River Road northerly from the Yellowknife-Frank's Channel Road was completed for a distance of approximately twenty-six miles. Preliminary surveys were also carried out in connection with the reconstruction of the Mackenzie Highway from Hay River southerly to the Alberta boundary, and approximately forty miles of these surveys were completed. In the Yukon Territory work was continued on the location and construction of a road extending from the Dawson-Stewart crossing on the highway in the Yukon to the Peel Plateau area, thence to Fort MacPherson on the Mackenzie River and ultimately to Inuvik, a total distance of approximately 450 miles. During the year a reconnaissance survey of this road as far as Fort MacPherson, a distance of approximately 300 miles, was completed. The final location of the first 140 miles starting from the Dawson-Stewart Highway was completed during the winter of 1958-59, and a clearing contract was let for the first forty-five miles of this project. Caches of oil and fuel as well as camp supplies and equipment were established along the route of this road during the winter months by

the use of tractor train. Bailey bridges were erected during the year over the Klondike and Yukon Consolidated Gold Corporation Ditch to give access to this development road.

Structures Division

This division is responsible for all international and interprovincial bridges for which the Federal Government provides funds. Although, since its organization five years ago, it has been concerned principally with bridges, it is also capable of taking care of any structural engineering problems which may be presented. Most of these bridges have been on the Trans-Canada Highway within the National Parks, and this program still represents a large part of the work. In addition, designs of all bridges forming part of the Trans-Canada Highway are submitted by the provinces for examination and approval in the Structures Division.

Less direct responsibility has been accepted for bridges built by the National Capital Commission within the City of Ottawa such as the Mackenzie King Bridge, which was completely designed and supervised by personnel of the Structures Division, as well as bridges to which the National Capital Commission contributed such as the Bytown, Hurdman and Chaudiere Bridges.

The Structures Division also undertakes the design of bridges in the Yukon and Northwest Territories on projects carried out by the Department on behalf of the Department of Northern Affairs and National Resources. Some of the more important crossings in this category with which the Division has been and is associated are located at points such as Whitehorse, Mayo River, Crooked Creek, Stewart and Pelley in the Yukon.

In addition to its responsibilities in the design and construction field, this Division looks after the operation and maintenance of certain bridges in various parts of Canada which are owned by the Federal Government. These include structures such as the Kingston-LaSalle Causeway as well as bridges such as the New Westminster Bridge in British Columbia, the low level bridge across the shipping canal at Burlington, Ontario, and a number of smaller bridges in other parts of the country.

Major new bridge projects undertaken during the year were the new Burlington Low Level Bridge in Ontario and the Campbellton, N.B.-Cross Point, P.Q. Bridge, each of which will cost in excess of four million dollars when completed.

Testing Laboratories Division

The Testing Laboratories provide labour and field testing facilities as well as a consultant service to the Department of Public Works and other departments and agencies of the Government in the manufacture, preparation or use of materials in many diversified technical fields.

Materials purchased for use in the construction and maintenance of public structures are tested to standard specifications to ensure their engineering suitability and general quality.

Special investigations are carried out where engineering problems are encountered or where no suitable specifications exist as in the case of new materials or combinations of materials and devices.

Assistance is given in the preparation of specifications and standard test methods for the Canadian Government Specifications Board, Canadian Standards Association, American Society for Testing Materials, as well as departmental specifications.

The staff members of the laboratories act as consultants to officers of this and other departments of Government on matters concerning soil mechanics, physical and chemical properties of materials, corrosion and other problems of a special nature.

The Division is divided along functional lines into three main operating sections, and details of the activities of each are as follows:

Chemical Section

This section offers testing facilities and technical services to all Government Departments and agencies. Building products, maintenance materials, protective coatings, lubricants, office supplies and various other materials were examined. A qualified products list for protective coatings was approved in principle for use by the Department of Public Works. Various corrosion problems were investigated, and a corrosion survey of a number of steel sheet piling wharves in Nova Scotia was completed.

A total of 2,083 samples were handled during the year which was an increase of 24.5% over the previous fiscal year.

Physical Section

This section provides a testing and consulting service to all Federal Government Departments and agencies in the field of construction. The materials tested include concrete, concrete products, aggregates, asphalt concrete cement, reinforcing steel and a number of miscellaneous items.

The testing of aluminum windows for air leakage which had been undertaken initially during the previous year was continued and has now developed into routine acceptance testing.

During the year this section continued its geological and rock investigational work on the availability of rock fill for the proposed rail and road causeway between New Brunswick and P.E.I. Field exposure tests on rock were set up at the site of the proposed crossing, and observations were also made at a test quarry which was opened in connection with this project. This work was conducted in conjunction with the general investigation which was being carried out in regard to this proposal by a joint consulting engineering firm.

Soils Section

This section consists of a field sampling unit which operates drilling and sampling equipment used to explore proposed foundation sites and a soil testing laboratory which determines the properties of the soil samples. The Soils Section then makes recommendations to the various construction agencies within the Government regarding foundation requirements.

HIGHWAYS DIVISION

TABLE 1

TRANS-CANADA HIGHWAY IN BANFF NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1959

(a) *Contracts Continuing from 1957-58*

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Banff National Park.....	43.3-51.1	Grading, Culverts and Base Course	Standard Gravel & Surfacing of Canada Ltd., Edmonton, Alta.	Feb. 22, 1956	Completed June 15, 1958.
Banff National Park.....	31-43.3	Grading, Culverts and Base Course	W. C. Wells Construction Co. Ltd., Saskatoon, Sask.	Aug. 31, 1956	Completed Sept. 1958.
Banff National Park.....	43.3 and 43.5	Construction of Six-span bridge over Bow River and Canadian Pacific Railway	New West Construction Ltd., Edmonton, Alta.	Apr. 2, 1958	Completed Oct. 1958.
Banff National Park.....	48.2 and 50.6	Construction of Canadian Pacific Railway overpasses	Burns & Dutton Concrete Constructors Co. Ltd., Calgary, Alta.	Nov. 18, 1957	Bridge 48.2 100% complete. Bridge 50.6 99% complete.

(b) *Contracts Awarded during 1958-59*

Banff National Park.....	0-51.1	Crushed Bituminous Concrete Aggregates	Standard Gravel & Surfacing of Canada Ltd., Calgary, Alta.	Jan. 29, 1959	No progress.
Banff National Park.....	29.5-51	Bituminous Stabilized Base Course	Mannix-O Sullivan Co. Ltd., Calgary, Alta.	Apr. 15, 1958	Completed Oct. 31, 1958.
Banff National Park.....	10.7	Construction of rigid frame concrete structure over Trans-Canada Highway	Peter Kiewit Sons Co. Ltd., Edmonton, Alta.	Jan. 9, 1959	Contract 17% complete.

NOTE:—Mileages are measured from the East Gate of Banff National Park.

TABLE 2
TRANSCANADA HIGHWAY IN YOHO NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1959

(a) *Contract Continuing from 1957-58*

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Yoho National Park.....	21, 21.8 and 22.7	Construction of three-span bridge over Kicking Horse River and two three-span bridges over Canadian Pacific Railway	Concrete Constructors Ltd., Calgary, Alta.	April 16, 1957	Completed July 1, 1958.

(b) *Contracts Awarded during 1958-59*

Yoho National Park.....	0-28.6	Crushed Bituminous Concrete Aggregates	Standard Gravel & Surfacing of Canada Ltd., Calgary, Alta.	Jan. 29, 1959	No progress.
Yoho National Park.....	12-28.4	Bituminous Stabilized Base Course	Thode Construction Co., Saskatoon, Sask.	May 2, 1958	Completed Sept. 17, 1958.

NOTE:—Mileages are measured from West Gate of Yoho National Park.

TABLE 3
TRANS-CANADA HIGHWAY IN GLACIER NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1959

(a) Contract Continuing from 1957-58

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Glacier National Park.....	1-13	Clearing and Grubbing	Mannix Ltd., Calgary, Alta.	June 20, 1957	Completed Nov. 7, 1958.

(b) Contracts Awarded During 1958-59

Glacier National Park.....	0-6	Grading and Culverts	Square M. & Coleman Collieries Construction Ltd., Edmonton, Alta.	July 14, 1958	Grading 30% complete.
Glacier National Park.....	6-9.7	Grading and Culverts	Rush & Tompkins Ltd., Edmonton, Alta.	July 31, 1958	Grading 10% complete.
Glacier National Park.....	9.7-12.4	Grading and Culverts	Emil Anderson Construction Co. Ltd., Vancouver, B.C.	Aug. 20, 1958	Grading 19% complete.
Glacier National Park.....	12.4-18.7	Grading Culverts and Construction of reinforced concrete Bridge Mile 16.61 Arch Culvert and Loop Creek Bridge Mile 18.3	Dawson Wade Co. Ltd., Vancouver, B.C.	Sept. 26, 1958	Grading 7% complete.
Glacier National Park.....	18.7-23.3	Grading Culverts and Construction of reinforced concrete Bridge Mile 19.45 Cougar Creek Bridge	General Construction Co. Ltd., Vancouver, B.C.	Aug. 11, 1958	Grading 8% complete.
Glacier National Park.....	23.3-27.3	Grading, Culverts and Retaining Walls	General Construction Co. Ltd., Vancouver, B.C.	Aug. 28, 1958	Grading 9% complete.
Glacier National Park.....	18.7 and 18.5	Construction of Illecillewaet River Bridge and Canadian Pacific Railway Overpass	Poole Construction Co. Ltd., Edmonton, Alta.	Dec. 4, 1958	No progress.
Glacier National Park.....	6.07	Construction of two-span bridge over Beaver River	New West Construction Co. Ltd., Edmonton, Alta.	Mar. 18, 1959	No progress.

NOTE:—Mileages measured from East Boundary of Glacier National Park.

TABLE 4
TRANS-CANADA HIGHWAY IN REVELSTOKE NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1959

(a) *Contract Continuing from 1957-58*

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Revelstoke National Park	0-7.5	Clearing and Grubbing	New West Construction Co. Ltd.	Oct. 1, 1957	Completed Oct. 31, 1958.

(b) *Contracts Awarded during 1958-59*

Revelstoke National Park	0-7.7	Grading Culverts and Sub Base	John Laing & Son (Canada) Ltd., Vancouver, B.C.	Aug. 20, 1958	Grading 12% complete.
Revelstoke National Park	7.6	Construction of a concrete Arch Culvert over Clachnacudainn Creek	Poole Construction Co. Ltd., Calgary, Alta.	Feb. 4, 1959	Structure 17% complete.
Revelstoke National Park	0	Construction of a four-span bridge over Silver Creek	Mannix Co. Ltd., Calgary, Alta.	Jan. 29, 1959	Structure 10% complete.
Revelstoke National Park	-	Construction of Canadian Pacific Railway Overpass	Burns & Dutton Concrete Con- struction Co. Ltd., Calgary, Alta.	Jan. 29, 1959	Structure 10% complete.

NOTE:—Mileages measured from East Boundary of Revelstoke National Park.

TABLE 5
TRANS-CANADA HIGHWAY IN TERRA NOVA NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1959

(a) *Contracts continuing from 1957-58*

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Terra Nova National Park....	0-10	Grading, culverts and traffic gravel	Concrete Products (Nfld.) Ltd., St. John's, Nfld.	Sept. 17, 1957	Grading 45% complete.
Terra Nova National Park....	10-18	Grading, culverts and granular base	Concrete Products (Nfld.) Ltd., St. John's, Nfld.	May 9, 1957	Contract 96% complete.
Terra Nova National Park....	18-25.2	Grading, culverts and granular base	Concrete Products (Nfld.) Ltd., St. John's, Nfld.	May 9, 1957	Contract completed Nov. 1958.

(b) *Contracts Awarded during 1958-59*

Terra Nova National Park....	13.4	Construction of Big Brook Bridge	Grant Mills Ltd., Montreal, P.Q.	Nov. 26, 1958	Structures 6% complete.
Terra Nova National Park....	18.4	Construction of Arch Culvert at Bread Cove	Grant Mills Ltd., Montreal, P.Q.	Nov. 26, 1958	
Terra Nova National Park....	23.3	Construction of Arch Culvert Southwest Brook	Canadian Machinery & Industry Construction Ltd., St. John's, Nfld.	Nov. 26, 1958	Structures 5% complete.
Terra Nova National Park....	21.3	Construction of Arch Culvert at Salton's Brook	Canadian Machinery & Industry Construction Ltd., St. John's, Nfld.	Nov. 26, 1958	
Terra Nova National Park....	0-10	Crushing and stockpiling granular base course	Tidewater Construction Co. Ltd. New Glasgow, N.S.	Feb. 4, 1959	Contract 6% complete.
Terra Nova National Park....	10.1-25.3	Crushing and stockpiling granular base course	McNamara Construction (Nfld.) Ltd., St. John's, Nfld.	Feb. 3, 1959	Contract 3% complete.

NOTE:—Mileages measured from the West Boundary of Terra Nova National Park.

TABLE 6
PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
(a) *National Parks—Contracts Continuing from 1957-58*

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Banff-Jasper Highway—Mileages measured from Lake Louise Junction					
Banff National Park.....	34-40	Grading and Culvert	W. C. Arnett Co. Ltd., Toronto, Ont.	Apr. 9, 1957	Contract completed Oct. 1958.
Banff National Park.....	40-46	Grading and Culvert	W. C. Arnett Co. Ltd., Toronto, Ont.	Mar. 18, 1957	Contract completed Nov. 15, 1958.
(b) <i>Contracts Awarded during 1958-59</i>					
Banff-Jasper Highway—Mileages measured from Lake Louise Junction					
Banff National Park.....	22-46	Base Course and Prime	Shaw Construction Co. Ltd., Midnapore, Alta.	Oct. 8, 1958	Contract 35% complete.
Banff National Park.....	46-58	Grading Culverts and construction of a reinforced concrete bridge over the Saskatchewan River	Standard Gravel & Surfacing of Canada Ltd., Calgary, Alta.	Aug. 20, 1958	Grading 58% complete. Structure 65% complete.
Banff National Park.....	58-67.7	Grading, Culverts and Base Course	Storms Contracting Co. Ltd., Vancouver, B.C.	Aug. 20, 1958	Contract 40% complete.
Banff National Park.....	74-82.3	Grading, Culverts and Base Course	Storms Contracting Co. Ltd., Vancouver, B.C.	Oct. 31, 1958	No progress.

TABLE 6 (Continued)

PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES—Continued

(a) *National Parks—Contracts Continuing from 1957-58*

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Bauft-Windermere Highway—Mileages measured from Eisenhower Junction					
Kootenay National Park.....	25.9	Construction of Vermilion River Bridge	Concrete Construction Ltd., Calgary, Alta.	Sept. 17, 1957	Structure completed Nov. 15, 1958
Kootenay National Park.....	11.7, 32.0 and 38.4	Widening Hafner, Wardle and Kootenay River Bridges	Concrete Construction Ltd., Calgary, Alta.	July 29, 1957	Structures completed Jan. 30, 1959
Kootenay National Park.....	18-25	Grading, Culverts and Base Course	Premier Construction Co. Ltd., Vancouver, B.C.	July 22, 1957	Contract completed Oct., 1958
Kootenay National Park.....	25-32	Grading, Culverts and Base Course	Assinibola Construction Co. Ltd., Calgary, Alta.	May 28, 1957	Contract completed Nov. 20, 1958
(b) <i>Contracts Awarded During 1958-59</i>					
Kootenay National Park.....	32-44	Bituminous Stabilized Base Course	Dawson, Wade Co. Ltd., Vancouver, B.C.	May 2, 1958	Contract completed June 30, 1958
Kootenay National Park.....	44-56	Bituminous Stabilized Base Course	Storums Contracting Co. Ltd., Vancouver, B.C.	May 29, 1958	Contract completed Oct. 16, 1958
Kootenay National Park.....	1-9.5	Grading, Culverts and Base Course	Premier Construction Co. Ltd., Vancouver, B.C.	Aug. 12, 1958	Contract 10% complete
Kootenay National Park.....	9.5-18	Grading, Culverts and Base Course	P. F. Law Construction Ltd., Vancouver, B.C.	Sept. 23, 1959	Grading 4% complete
(b) <i>Contracts Awarded During 1958-59</i>					
Yoho National Park.....	—	Construction of Kicking Horse River bridge and approaches on the Yoho Valley access road, also the removal of rock bluff at the junction of T.C.H. and Banff-Jasper Highway.	Cunningham & Shannon Ltd., Taber, Alta.	Oct. 8, 1958	Grading 70% complete. Structures 22% complete.
Yoho National Park.....	0.5	Grading, Culverts and Base Course on the Emerald Lake Access Road	New West Construction Co. Ltd. Edmonton, Alta.	Sept. 24, 1958	Grading 19% complete.

(b) *Contract Awarded During 1958-59*

Banff National Park.....	Banff Townsite	Reconstruction of Banff Ave.	Mannix Ltd., Calgary, Alta.	Sept. 9, 1958	Reconstruction 67% complete.
<i>(a) National Parks—Contract Continuing from 1957-58</i>					
Signal Hill Park.....	—	Grading, Base Course and Paving Signal Hill Park Access Road	Concrete Products (Nfld.) Ltd., St. John's, Nfld.	Sept. 5, 1957	Contract completed July 24, 1958.
<i>(b) Contract Awarded During 1958-59</i>					
Signal Hill Park.....	—	Erection of Guide Rail on the Signal Hill Access Road	Royle Excavating Co. Ltd., St. John's, Nfld.	Oct. 31, 1958	Contract 50% complete.
<i>(a) National Parks—Contract Continuing from 1957-58</i>					
Cape Breton Highland National Park	10-15	Grading, Culverts and Base Course	Trynor Construction Co. Ltd., Halifax, N.S.	May 10, 1957	Contract completed June 30, 1958.
<i>(b) Contracts Awarded During 1958-59</i>					
Cape Breton Highland National Park	0-15 15.20, 22.5 and 23.5	Bituminous Pavement Grading Culverts and Base Course	Diamond Construction Ltd., Fredericton, N.B. Chisholm Construction Ltd., Antigonish, N.S.	April 30, 1958 Sept. 9, 1958	Contract completed Sept. 22, 1958. Contract 12% complete.
<i>(a) National Parks—Contracts Continuing from 1957-58</i>					
Prince Edward Island.....	4.8	Construction of Covehead Inlet Bridge	R. A. Blyth Construction Ltd., Toronto, Ontario.	Aug. 20, 1956	Contract completed June, 1958.
Prince Edward Island.....	0-4.24	Grading, Culverts, Base Course and Paving between Dalway and Stanhope Beach	Matheson & MacMillan Ltd., Charlottetown, P.E.I.	May 7, 1957	Contract completed August, 1958.

TABLE 6 (Continued)
PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES—Continued
(b) *Contracts Awarded during 1958-59*

Location	Mileage	Type of Contract	Contractor	Date Contract Awarded	Progress
Prince Edward Island.....	12.47-20.15	Grading, Culverts, Base Course and paving between Rustico Harbour and New London camp grounds	Morrison & McRae Ltd., Summerside, P.E.I.	July 24, 1958	Contract 25% complete.
Prince Edward Island.....	7.45-11.67	Grading Culverts, and Stabilized base course between Brackley Point and West end of Rustico Island	Diamond Construction Ltd., Fredericton, N.B.	Sept. 9, 1958	Contract 15% complete.
(a) <i>Northwest Territories—Contracts continuing from 1957-58</i>					
Northwest Territories.....	40-52 measured from MacKenzie Highway	Construction of 24-foot shoulder to shoulder gravel surface road Mile 40 to Fort Providence	Western Construction & Lumber Co. Ltd., Edmonton, Alta.	Mar. 18, 1957	Contract completed July, 1958.
Northwest Territories.....	0-20 measured from Yellowknife	Grading and Culverts 20 mile section between Yellowknife and Fort Rae	McNamara Construction Co. Ltd., Toronto, Ont.	Mar. 26, 1957	Grading 99% complete.
Northwest Territories.....		Clearing—between Fort Providence and Fort Rae	Mannix Ltd., Calgary, Alta.	Jan. 9, 1958	Contract terminated April, 1958.
Northwest Territories.....	56.0	Construction of Kakisa River Bridge	Poole Construction Ltd., Calgary, Alta.	Mar. 19, 1958	Contract completed Oct. 15, 1958.
(b) <i>Contracts Awarded during 1958-59</i>					
Northwest Territories.....	0-31 measured from Providence	Construction of Development Road between Providence and Fort Rae	B. G. Linton & T. J. Rimmer Co. Ltd., Hay River, N.W.T.	Apr. 3, 1958	Construction completed Oct. 29, 1958.
Northwest Territories.....	20-58 measured from Yellowknife	Grading, Culverts, and Crushed rock surfacing between Yellowknife and Fort Rae	Mannix Ltd., Calgary, Alta.	May 14, 1958	Contract 42% complete.

Northwest Territories.....	0-20 measured from Yellowknife 0-22.7	Crushed rock surfacing between Yellowknife and Fort Rae	Western Construction & Lumber Co. Ltd., Edmonton, Alta.	Dec. 17, 1958	Contract 45% complete.
Northwest Territories.....		Grading, Culverts and Crushed rock surfacing— Fort Fitzgerald to Bell Rock	Mannix Ltd., Calgary, Alta.	Jan. 9, 1959	Work began Feb., 1959.
Northwest Territories.....	31-85	Grading and Traffic Gravel between Providence and Fort Rae	McNamara Co. Ltd., Toronto, Ont.	Mar. 11, 1959	No progress.
Northwest Territories.....	85-136	Grading and Traffic Gravel between Provident and Fort Rae	Mannix Co. Ltd., Calgary, Alta.	Mar. 18, 1959	No progress.
<i>(a) Wood Buffalo National Park—Contract Awarded During 1957-58</i>					
Wood Buffalo National Park..	0-75	Clearing from Peace Point to West Boundary of Wood Buffalo National Park	Yukon Construction Co. Ltd., Edmonton, Alta.	Feb. 12, 1958	Contract terminated May 31, 1958.
<i>(b) Contract Awarded During 1958-59</i>					
Wood Buffalo National Park..	0-75	Clearing and burning from Peace Point to West Boundary of Wood Buffalo Park	McNamara Co. Ltd., Toronto, Ont.	Dec. 17, 1958	Clearing 47% complete.
<i>(c) Contracts Awarded During 1958-59</i>					
Yukon Territory.....	—	Construction of Tatchun River Bridge approximately 14 miles north of Carmacks on the Whitehorse-Mayo Road	Dawson & Hall Ltd. Vancouver, B.C.	May 26, 1958	Structures 96% complete.
Yukon Territory.....	—	Construction of Yukon River Bridge at Carmacks, Y.T.	Dawson & Hall Ltd., Vancouver, B.C.	June 6, 1958	Structure 83% complete.
Yukon Territory.....	0-45	Clearing—Project begins 35 miles east of Dawson and runs north easterly along the North Klondike River	J. J. Strachan, Dawson, Y.T.	Dec. 10, 1958	Contract 28% complete.
Yukon Territory.....	—	Erection of Bailey Bridges over the Klondike River and Yukon Consolidated Gold Co. Intake Ditch	John MacIsaac, Whitehorse, Y.T.	Dec. 8, 1958	No progress.

TABLE 7
CONTRACT STATEMENT TO 31 MARCH, 1959

Location	Type of Structure	Contractor	Date Awarded	Progress
Tatchum Creek, Y.T.	Steel stringer span, concrete deck	Dawson & Hall Ltd., Vancouver, B.C.	May 26, 1958	100% complete.
Kakisa River, N.W.T.	Steel deck Truss and cantilever	Poole Construction Co., Edmonton, Alta.	March 19, 1958	100% complete.
Carmacks, Y.T.	Steel Truss Highway Bridge	Dawson & Hall Ltd., Vancouver, B.C.	May 29, 1958	90% complete.
Burlington Canal	Substructure—Lift Bridge	Royert McAlpine Ltd., Montreal, P.Q.	Oct. 2, 1958	29% complete.
Campbellton, N.B.—Cross Point, Que.	N.B. Causeway approach	Ralph Sharp, Campbellton, N.B.	May 21, 1958	65% complete.
Interprovincial Bridge				
Mayo River Bridge Whitehorse-Mayo Rd., Y.T.	Steel Truss Highway Bridge	John A. MacIsaac Construction Co., Whitehorse, Y.T.	May 21, 1957	100% complete.
Crooked Creek Bridge	Steel Truss Highway Bridge	Poole Construction Co., Vancouver, B.C.	May 24, 1957	100% complete.

TABLE 8

BRIDGES AND OTHER STRUCTURAL WORK DESIGNED DURING
FISCAL YEAR 1958-59(a) *For Trans-Canada Highway in National Parks*

*Bath Creek Bridge, Mile 50.3.....	Banff
*Illecillewaet No. 1.....	Glacier
*Illecillewaet No. 2.....	Glacier
*Illecillewaet No. 3.....	Glacier
*Cougar Creek Bridge.....	Glacier
*Lower Bear Creek Bridge.....	Glacier
*C.P.R. Overpass Mile 18.6.....	Glacier
Beaver River Bridge.....	Glacier
Park Entrance Overpass.....	Mount Revelstoke
Clachnacudainn Bridge.....	Mount Revelstoke
Silver Creek Bridge.....	Mount Revelstoke
*South West Brook Bridge.....	Terra Nova
*Salton's Brook.....	Terra Nova
Big Brook Bridge.....	Terra Nova
Bread Cove Bridge.....	Terra Nova
Rustico Harbour Bridge.....	Prince Edward Island

(b) *For Department of Northern Affairs and National Resources*

*Yukon River Bridge, (at Carmacks).....	Yukon Territory
Pelley River Bridge.....	Yukon Territory
Stewart River Bridge.....	Yukon Territory
Timber Span for Mills Road.....	Northwest Territories
Frank's Channel Bridge.....	Northwest Territories
Repairs to Covehead Inlet Bridge.....	Prince Edward Island
Miette River Bridge.....	Jasper National Park
Vermillion River Bridge.....	Kootenay National Park
Kootenay River Bridge.....	Kootenay National Park
Haffner River Bridge.....	Kootenay National Park
*Yoho Valley Access Road.....	Yoho National Park

(c) *Miscellaneous*

Testing Slab D.P.W. Testing Laboratories.....	Ottawa
*Avalanche Snow Sheds.....	Glacier National Park
*Victoria Museum.....	Ottawa
Standard Timber Trestle and Culverts.....	Various locations
Checking live load capacity of Champlain Bridge.....	Ottawa
Repairs to Calumet-Bryson Bridge and report of possible new site.....	Province of Quebec
Report on proposed repairs to Pier Wall of Plaza Bridge....	Ottawa

Note:

*Design on these projects was started in 1957-58 fiscal year and continued in 1958-59.

TABLE 9

TRANS CANADA HIGHWAY PROVINCIAL BRIDGES 1958-59
CHECKED AND APPROVED FOR SCHEDULE "B"

Newfoundland.....	5
Nova Scotia.....	4
Prince Edward Island.....	3
New Brunswick.....	15
Ontario.....	29
Manitoba.....	8
Saskatchewan.....	0
Alberta.....	0
British Columbia.....	15
	<hr/>
	79

Road to Resources 1958-59

Saskatchewan.....	2
Alberta.....	3
	<hr/>
	5

TABLE 10

TESTING LABORATORIES DIVISION
QUANTITY OF EACH TYPE OF MATERIAL RECEIVED

Material	Samples Received	
	Total	Sub-Total
Concrete Aggregates.....	356	
“ Test Specimens.....	4,172	
“ Products.....	119	
Cement.....	75	
Ceramic Materials.....	363	
Rock.....	164	
Metal.....	18	
Aluminum Windows.....	20	
Miscellaneous.....	80	
Sub-Total—PHYSICAL SECTION.....	5,368	5,368
Soils (Foundation Material).....	1,488	
Sub-Total—SOILS SECTION.....		1,488
Creosote Oils.....	274	
Protective Coating.....	657	
Petroleum Products.....	222	
Soaps and Detergents.....	117	
Waxes and Polishes.....	62	
Water.....	56	
Office Supplies.....	237	
Paper.....	36	
Sweeping Compounds.....	8	
Miscellaneous.....	334	
Sub-Total—CHEMICAL SECTION.....	2,083	2,083
TOTAL.....	8,939	8,939
Creosote Reports Reviewed.....	919	919
GRAND TOTAL (Samples and Reports).....	9,858	9,858

TABLE 11

TESTING LABORATORIES DIVISION

SOURCE OF SAMPLES RECEIVED AND QUANTITY FROM EACH SOURCE

Source	Samples tested	
	Total	Sub-Total
Department of Public Works—		
Harbours and Rivers Branch.....	2,189	
Building Construction Branch.....	3,891	
Purchasing and Stores Branch.....	269	
Property and Building Management Branch.....	84	
Development Engineering Branch.....	375	
TOTAL FOR PUBLIC WORKS.....		6,808
Department of Public Printing and Stationery.....	225	
St. Lawrence Seaway.....	174	
Department of Transport.....	526	
Department of National Defence.....	104	
Department of Justice.....	151	
Central Mortgage & Housing Corporation.....	528	
Other Sources.....	428	
TOTAL FOR OTHER SOURCES.....		2,131
TOTAL.....	8,939	8,939

PUBLIC BUILDINGS

E. A. Gardner, Chief Architect

NEWFOUNDLAND

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Burin.....	Federal Building
Gander.....	Federal Building
Grand Bank.....	Detachment Building (R.C.M.P.)
Harbour Buffet.....	Federal Building
Marystown.....	Federal Building
Stephenville Crossing.....	R.C.M.P. Building
Wabana.....	Federal Building

The following construction projects undertaken during previous fiscal years and described in previous years' reports are still in progress:

St. John's.....	Customs Building
St. John's.....	Federal Building

The following construction projects were undertaken during the fiscal year 1958-1959:

BADGER'S QUAY

Post Office—A contract was awarded in July, 1958, to Louis Briffett and Sons Limited for the construction of a one-storey building, 25 feet wide and 33 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

CHANNEL

Detachment Building (R.C.M.P.)—A contract was awarded in February, 1959, to Saunders Howell and Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex, without basement. The building is 66 feet long, and the depth is 25 feet for the residence, and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

DEER LAKE

Federal Building—A contract was awarded in September, 1958, to Provincial Constructors Limited for the construction of a one-storey addition, without basement, including alterations and improvements to the existing building. The addition is 15 feet wide and 49 feet long. The structure, which is supported by a concrete foundation, is of wood construction throughout. The roof is flat, and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work was completed in March, 1959.

GANDER

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to William A. Trask Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office annex and a separate garage. The building is 67 feet long and the depth is 25 feet for the residence and 46 feet for the annex. The garage is 22 feet by 12 feet. The building, which is supported by a concrete foundation, is of wood construction throughout covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

GARNISH

Post Office—A contract was awarded in November, 1958, to George T. Dixon Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

PORT REXTON

Post Office—A contract was awarded in November, 1958, to John R. Piercey for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

PORT SAUNDERS

Detachment Building (R.C.M.P.)—A contract was awarded in November, 1958, to Spracklin and Reid Limited for the construction of a Detachment Building for the R.C.M.P. It is a one and one-half storey dwelling and office building, with basement, 27 feet wide and 36 feet long, with an attached one-car garage, without basement, 12 feet wide and 22 feet long, and a separate generator house, without basement, 11 feet wide and 16 feet long. The building, which is supported by a concrete foundation, is of wood construction throughout covered with asbestos shingles. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the R.C.M.P. The work is in progress.

SPANIARD'S BAY

Post Office—A contract was awarded in November, 1958, to Mark Gosse and Sons Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

STEPHENVILLE

Federal Building—A contract was awarded in March, 1959, to Provincial Constructors Limited for the construction of a one-storey addition to this building, with basement, including alterations and improvements to the existing building. The addition is 19 feet wide and 56 feet long. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

WESLEYVILLE

Federal Building—A contract was awarded in May, 1958, to R. S. Chaulk and Sons Limited for the construction of a one-storey Federal building, 36 feet wide and 36 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the Post Office Department and the Canadian National Telegraphs. The work was completed in January, 1959.

PRINCE EDWARD ISLAND

The following construction project was undertaken during the fiscal year 1958-1959:

PORT BORDEN

Post Office—A contract was awarded in July, 1958, to Robert H. Rankin for the construction of a one-storey Post Office building, 32 feet wide and 32 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in January, 1959.

NOVA SCOTIA

The following construction projects undertaken during previous fiscal years and described in previous years' reports are still in progress:

Bedford.....	Federal Building
Truro.....	Administration Building (RCMP)

The following construction projects were undertaken during the fiscal year 1958-1959:

BARRINGTON PASSAGE

Federal Building—A contract was awarded in April, 1958, to Arenburg Construction Company Limited for the construction of a one-storey Federal Building, 46 feet wide and 56 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Fisheries, National Revenue and Post Office. The work was completed in March, 1959.

BROOKLYN

Post Office—A contract was awarded in October, 1958, to Acadia Construction Limited for the construction of a one-storey Post Office building, 32 feet wide and 35 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

CANNING

Post Office—A contract was awarded in December, 1958, to Avon Construction Company Limited for the construction of a one-storey Post Office building, 32 feet wide and 35 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

CALEDONIA

Post Office—A contract was awarded in December, 1958, to Raymond Downie for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

DARTMOUTH

Marine Stores Building—A contract was awarded in April, 1958, to Fundy Construction Company Limited for the construction of a four-storey Marine Stores Building, 41 feet wide and 198 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Transport. The work is in progress.

DIGBY

Federal Building—A contract was awarded in November, 1958, to Vernon C. Woodworth for the construction of a two-storey Federal building, 72 feet wide and 74 feet long, with half-basement. The structure is supported by a concrete foundation and is of concrete and steel construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office and the National Revenue Departments. The work is in progress.

ELMSDALE

Post Office—A contract was awarded in February, 1959, to Owen Fisher for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will accommodate the Post Office Department. The work is in progress.

MIDDLE MUSQUODOBOIT

Post Office—A contract was awarded in November, 1958, to Owen Fisher for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

NEWPORT

Post Office—A contract was awarded in November, 1958, to Harry Hines for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

NEW ROSS

Post Office—A contract was awarded in January, 1959, to Swinamers Building Services Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is

supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

NORTH SYDNEY

Federal Building—A contract was awarded in October, 1958, to Foundation Maritime Limited for the construction of a two-storey Federal building, 82 feet wide and 103 feet long, with basement. The structure is supported by a concrete foundation and is of reinforced concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Fisheries, National Revenue, Post Office and the Unemployment Insurance Commission. The work is in progress.

PARRSBORO

Detachment Building (R.C.M.P.)—A contract was awarded in September, 1958, to Halverson and Smith Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey building, with basement, and has a one-storey office and garage annex, without basement. The building is 67 feet long, with a depth of 25 feet for the building and 33 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is pitched and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

PUGWASH

Federal Building—A contract was awarded in March, 1959, to George E. Waugh Building Contractor for the construction of a one-storey Federal building, 29 feet wide and 45 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with brick exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Fisheries and Post Office. The work is in progress.

RIVER JOHN

Post Office—A contract was awarded in December, 1958, to Halverson and Smith Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

WATERVILLE

Post Office—A contract was awarded in October, 1958, to Avon Construction Company Limited for the construction of a one-storey Post Office building, 32 feet wide and 32 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The exterior walls are covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

WEYMOUTH

Post Office—A contract was awarded in January, 1959, to Camille P. Comeau for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation

and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

YARMOUTH

Storage and Garage Building—Ferry Terminal—A contract was awarded in December, 1958, to Kenny Construction Company Limited for the construction of a one-storey storage and garage building, 24 feet wide and 41 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with brick exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Canadian National Railways. The work was completed in March, 1959.

NEW BRUNSWICK

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Bathurst..... Federal Building
St. Andrews..... Atlantic Biological Station.

The following construction projects undertaken during previous fiscal years and described in previous years' reports are still in progress:

Newcastle..... Federal Building
Saint John..... Customs Building

The following construction projects were undertaken during the fiscal year 1958-1959:

BOIESTOWN

Post Office—A contract was awarded in December, 1958, to Coronet Paving Limited for the construction of a new one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

BRISTOL

Post Office—A contract was awarded in October, 1958, to Steele and Company Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

BUCTOUCHE

Detachment Building (R.C.M.P.)—A contract was awarded in June, 1958, to La Construction Acadienne Limitée for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long, and the depth is 25 feet for the residence and 33 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in January, 1959.

CAMPBELLTON

Federal Building—A contract was awarded in September, 1958, to Kenny Construction Company Limited for the construction of a two-storey Federal building, with basement, 85 feet wide and 120 feet long. The structure is supported by a concrete foundation and is of concrete construction with brick and stone exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Post Office, Public Works, Fisheries, National Film Board and the Unemployment Insurance Commission. The work is in progress.

CANTERBURY

Post Office—A contract was awarded in October, 1958, to Coronet Paving Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

EDMUNDSTON

Detachment Building (R.C.M.P.)—A contract was awarded in November, 1958, to Guay Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and four-car garage annex. The building is 67 feet long, and the depth is 25 feet for the residence, and 50 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

EAST FLORENCEVILLE

Detachment Building (R.C.M.P.)—A contract was awarded in December, 1958, to Clumac Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and two-car garage annex. The building is 79 feet long, and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

FREDERICTON

Agricultural Research Laboratory—A contract was awarded in December, 1958, to Atlas Construction Company Limited for the construction of a three-storey L-shaped research laboratory with basement and penthouse, one wing being 63 feet wide and 219 feet long and the other 42 feet wide and 48 feet long. The structure is supported by a concrete foundation and is of concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work is in progress.

Division Garage (R.C.M.P.)—A contract was awarded in June, 1958, to Weyman Construction Company Limited for the construction of Division Garage for the R.C.M.P. It is a one-storey building, with part-basement, 67 feet wide and 126 feet long. The building, which is supported by a concrete

foundation, is of concrete construction and covered with brick. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

GRAND FALLS

Federal Building—A contract was awarded in July, 1958, to Conrad Forget Incorporated for the construction of a two-storey Federal Building, 57 feet wide and 89 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction with brick and stone exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Agriculture, Fisheries, Post Office and the Unemployment Insurance Commission. The work is in progress.

MONCTON

Married Quarters (R.C.M.P.)—A contract was awarded in December, 1958, to Eastern Woodworkers Limited for the construction of nine buildings to be used as Married Quarters for the R.C.M.P. Each one is a two-storey building, 25 feet wide and 27 feet long, with basement, and supported by a concrete foundation. The buildings are of wood construction throughout covered with brick veneer. The roofs are pitched and covered with asphalt shingles. These buildings will provide accommodation for the R.C.M.P. The work is in progress.

NORTON

Post Office—A contract was awarded in October, 1958, to MacPherson Builders Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

PERTH

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to MacLaughlin Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence with basement, and has a one-storey office and garage annex. The building is 74 feet long and the depth of the residence is 25 feet and of the annex 44 feet. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The new building will provide accommodation for the R.C.M.P. The work is in progress.

PORT ELGIN

Detachment Building (R.C.M.P.)—A contract was awarded in May, 1958, to McKay Builders Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long, and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in January, 1959.

SALISBURY

Post Office—A contract was awarded in October, 1958, to MacPherson Builders Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a

concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

SAINT JOHN

Standards Building—A contract was awarded in July, 1958, to Richard & B. A. Ryan Limited for the construction of a two-storey building, 38 feet wide and 69 feet long, with part-basement. The structure is supported by a concrete foundation and is of concrete and structural steel construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Trade and Commerce. The work is in progress.

GENERALLY

Sundry repairs, renovations and improvements were made to the following Public Buildings under contracts having a value of \$5,000.00 and over:

Fredericton.....	Science Service Laboratory.....	Atlas Construction Company Limited
St. Croix.....	Customs Building.....	J. Flood and Sons Limited
Union Mills.....	Customs Building.....	R. E. McCready

QUEBEC

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Chicoutimi.....	Federal Building
Caughnawaga.....	School
Montreal.....	Postal Station "R"
Montreal.....	Postal Station "Victoria"
Montreal.....	Postal Station "Q" (Ville St. Laurent)
Pointe Claire.....	Research Laboratory (Northern Affairs and National Resources)
Richmond.....	Federal Building
Sorel.....	Federal Building
St. Joseph d'Alma.....	Federal Building
Ste. Anne de Bellevue.....	Biological Test Laboratory
Ste. Anne de Bellevue.....	Gravity Sewer (Biological Test Laboratory)
Trois Pistoles.....	Federal Building
Thetford Mines.....	Federal Building

The following construction projects undertaken during previous fiscal years and described in previous years' reports are still in progress:

Montreal.....	Office Building (National Revenue)
Quebec.....	Terminal Building (Wolfe's Cove)

NOTE: The above building is to be known in future as Champlain Harbour Station.

Quebec.....	Forest Biology Laboratory (Laval University)
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The following construction projects were undertaken during the fiscal year 1958-1959:

AYLMER EAST

Post Office—A contract was awarded in June, 1958, to M. J. Sulphur and Sons Limited for the construction of a one-storey Post Office building, 54 feet wide and 56 feet long, without basement. The structure is supported by a concrete foundation, is of wood construction throughout covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in December, 1958.

BAGOTVILLE

Federal Building—A contract was awarded in April, 1958, to J. O. Lambert for the construction of a one-storey addition to this building including alterations and improvements to the existing building. The new addition is 46 feet wide and 51 feet long. The structure, which is supported by a concrete foundation, is concrete construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work was completed in December, 1958.

BROMPTONVILLE

Post Office—A contract was awarded in November, 1958, to Dorilas Grenier Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in February, 1959.

CAMPBELL'S BAY

Post Office—A contract was awarded in January, 1959, to G. A. Reinke and Sons Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

CHIBOUGAMAU

Post Office—A contract was awarded in March, 1959, to Lamothe Construction Company Limited for the construction of a one-storey Post Office building, 54 feet wide and 57 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

CONTRECEUR

Post Office—A contract was awarded in January, 1959, to Lemieux Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

DORION-VAUDREUIL

Post Office—A contract was awarded in September, 1958, to Gauthier and Frère Limitée for the construction of a one-storey Post Office building, 54 feet wide and 56 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

DUNHAM

Post Office—A contract was awarded in December, 1958, to Marcel Lachapelle for the construction of a Post Office building, 25 feet wide and 29 feet long. The structure, which is supported by a concrete block foundation, is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with felt and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

EAST BROUGHTON

Post Office—A contract was awarded in November, 1958, to Hervé Lessard and Sigefroid Labrecque for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

FORT COULONGE

Post Office—A contract was awarded in March, 1959, to R. Bertrand Construction Limited for the construction of a new one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

FRYER'S ISLAND DAM

Residence—A contract was awarded in May, 1958, to A. D. Construction Engineering for the construction of a two-storey residence, 23 feet wide and 25 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles. The residence will provide accommodation for the Department of Public Works. The work was completed in September, 1958.

GRENVILLE

Post Office—A contract was awarded in December, 1958, to Major Construction for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

HÉBERTVILLE

Post Office—A contract was awarded in November, 1958, to Joseph Aimé Simard for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete

foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

HENRYSBURG

Animal Inspection Station—A contract was awarded in September, 1958, to Armand Barrière for the construction of a one-storey T-shaped animal inspection building, without basement, one wing being 32 feet wide and 69 feet long, and the other 16 feet wide and 26 feet long. The structure is supported by a concrete block foundation and is of concrete block construction with stucco on the exterior walls. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the Department of Agriculture. The work is in progress.

LORRAINVILLE

Post Office—A contract was awarded in March, 1959, to Emile Joliette Limitée for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

LAC-AU-SAUMON

Post Office—A contract was awarded in November, 1958, to Arthur Morin for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

MONTEBELLO

Post Office—A contract was awarded in November, 1958, to Dufort and Lavoie for the construction of a one-storey Post Office building, 53 feet wide and 71 feet long, with basement. The structure is supported by a concrete foundation and is of wood and concrete block construction with brick and wood on the exterior walls. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the Post Office Department. The work is in progress.

MONTREAL

Vault Building—A contract was awarded in August, 1958, to J. Rosario Loyer for the construction of a two and one-half storey vault building, 57 feet wide and 128 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the National Film Board. The work is in progress.

NICOLET

Federal Building—A contract was awarded in October, 1958, to Rapid Construction Limitée for the construction of a two-storey Federal building, 64 feet wide and 80 feet long, with basement. The structure is supported by a concrete foundation and is of reinforced concrete and structural steel construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue and Post Office. The work is in progress.

PLESSISVILLE

Federal Building—A contract was awarded in July, 1958, to J. O. Lambert Incorporated for the construction of a one and one-half storey Federal Building, 65 feet wide and 71 feet long, with basement. The structure is supported by a concrete foundation and is of concrete and structural steel construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Post Office, Public Works and the Unemployment Insurance Commission. The work was completed in March, 1959.

POINTE-BLEUE

School and Dormitory—A contract was awarded in February, 1959, to C. Jobin Limited for the construction of a two-storey school, 56 feet wide and 87 feet long, without basement, and a two-storey dormitory, with part-basement consisting of a main wing 49 feet wide and 184 feet long, three attached wings, two being 35 feet wide and 56 feet long and one 32 feet wide and 45 feet long, and a fourth wing 68 feet wide and 106 feet long joined to the main wing by a section 32 feet wide and 58 feet long. Each structure is supported by a concrete foundation and is of wood construction throughout. The roofs are flat and covered with tar and gravel. The buildings will provide accommodation for the Department of Citizenship and Immigration. The work is in progress.

ROUGEMONT

Post Office—A contract was awarded in December, 1958, to Lemieux Construction Limited for the construction of one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

SEPT-ISLES

Federal Building—A contract was awarded in August, 1958, to C. Jobin Limitée for the construction of a two-storey Federal building, 84 feet wide and 120 feet long, with basement. The structure is supported by a concrete foundation and is of concrete and structural steel construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Public Works, Post Office, Northern Affairs and National Resources, Citizenship and Immigration and the Unemployment Insurance Commission. The work is in progress.

SHAWINIGAN

Federal Building—A contract was awarded in October, 1958, to C. Jobin Limitée for the construction of a two-storey Federal Building, 95 feet wide and 164 feet long, with basement. The structure is supported by a concrete foundation and is of reinforced concrete with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Post Office, and the Unemployment Insurance Commission. The work is in progress.

STE-ANNE-DE-BELLEVUE

Federal Building—A contract was awarded in November, 1958, to Eureka Construction Incorporated for the construction of a two-storey addition to this building, without basement, including alterations and improvements to the existing building. The addition is 46 feet wide and 80 feet long. The structure

which is supported by a concrete foundation, is of masonry construction covered with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department and the Unemployment Insurance Commission. The work is in progress.

ST-AMBROISE-DE-CHICOUTIMI

Post Office—A contract was awarded in November, 1958, to Joseph Aimé Simard for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

STE-AGATHE-DES-MONTS

Federal Building—A contract was awarded in July, 1958, to Conrad Forget Incorporated for the construction of a one-storey addition to this building, with basement, including alterations and improvements to the existing building. The addition is 28 feet wide and 55 feet long. The structure, which is supported by a concrete foundation, is of masonry and steel construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

ST-BARTHÉLEMY

Post Office—A contract was awarded in December, 1958, to Emilien Lafortune for the construction of a building, 31 feet wide and 34 feet long. The structure, which is supported by a concrete block foundation, is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

ST-HUBERT

Post Office—A contract was awarded in December, 1958, to Lemieux Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

ST-JEAN

Garage, Workshop and Storage Building—A contract was awarded in October, 1958, to Methe Frères Limitée for the construction of a one-storey garage, workshop and storage building, 62 feet wide and 103 feet long, without basement. The structure, which is supported by a concrete foundation over piles, is of structural steel construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work is in progress.

STE-MARGUERITE STATION

Post Office—A contract was awarded in December, 1958, to Major Construction for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the

exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

ST-PAUL-L'ERMITE

Post Office—A contract was awarded in December, 1958, to Marcel Jetté for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

STE-ROSE

Federal Building—A contract was awarded in May, 1958, to J. Lamontagne Limitée for the construction of a one-storey addition to this building including alterations and improvements to the existing building. The addition is 16 feet wide and 50 feet long. The structure, which is supported by a concrete foundation, is of masonry construction throughout with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work was completed in February, 1959.

STE-THÈCLE

Post Office—A contract was awarded in January, 1959, to Justin Desy & Alban Trudel for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

VILLE-ST-GEORGES

Federal Building—A contract was awarded in November, 1958, to J. O. Lambert Incorporated for the construction of a two-storey L-shaped Federal building, with basement; one wing being 62 feet wide and 87 feet long and the other 20 feet wide and 40 feet long. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Agriculture, Post Office and Unemployment Insurance Commission. The work is in progress.

GENERALLY

Sundry repairs, renovations and improvements were made to the following public buildings under contracts having a value of \$5,000.00 and over:

Hull.....National Printing Bureau...John Colford Contracting Company Limited
Ste-Anne-de-la-
Pocatière.....Science Service Laboratory..Lortie and Roussin Incorporated

ONTARIO

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-59:

Bancroft..... Federal Building
Brampton..... Federal Building
Brantford..... Residential Schools

Cobourg.....	Federal Building
Cornwall.....	Customs Building
Don Mills.....	Federal Building
Grimsby.....	Federal Building
Hawkesbury.....	Federal Building
Jamestown.....	Federal Building
Moose Factory...	Teacherage Building
Oakville.....	Federal Building
Ottawa.....	Building for Trade and Commerce
Ottawa.....	Chemistry Radioactive Ores and Administration Building
Ottawa.....	Power and Pilot Plants National Research Council (Sussex Drive)
Ottawa.....	Forest Products Laboratory (Montreal Road)
Ottawa.....	Science Service Laboratory (Central Experimental Farm)
Ottawa.....	Testing Laboratory, Riverside Drive (Department of Public Works)
Ottawa.....	Library of Parliament (Lighting Fixtures)
Sarnia.....	Federal Building
South Bay (Mani- toulin Islands).	School Building
St. Thomas.....	Federal Building
Toronto.....	Federal Building (Adelaide Street)
Walpole Island...	School and Residence
Willowdale.....	Federal Building

The following construction projects undertaken during previous fiscal years and described in previous years' reports are still in progress:

Belleville.....	Federal Building
Brantford.....	Federal Building (Addition)
Ottawa.....	Geological Building (Booth Street)
Ottawa.....	Chemistry Radioactive Ores and Administration Building (Laboratory Fittings)
Ottawa.....	Central Heating Plant (Central Experimental Farm) (Boilers and Equipment)
Ottawa.....	Finance Building (Tunney's Pasture)
Ottawa.....	Lorne Building
Ottawa.....	Public Works Building
Toronto.....	Federal Building

The following construction projects were undertaken during the fiscal year 1958-1959:

AGINCOURT

Post Office—A contract was awarded in May, 1958, to Fidelity Construction Limited for the construction of a one-storey Post Office building, 66 feet wide and 82 feet long, with basement. The structure is supported by a concrete foundation and is of steel construction with brick exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

ALFRED

Post Office—A contract was awarded in December, 1958, to Sinclair Supply and Company Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by

a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

AYTON

Post Office—A contract was awarded in November, 1958, to Telford Gerhardt for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

BLIND RIVER

Post Office—A contract was awarded in July, 1958, to Samson Construction Limited for the construction of a one-storey Post Office building, 57 feet wide and 65 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

BRACEBRIDGE

Federal Building—A contract was awarded in June, 1958, to Andeen Construction Limited for the construction of a two-storey Federal building, 76 feet wide and 91 feet long, with basement. The structure is supported by a concrete foundation and is of concrete and structural steel construction with brick and stone on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Post Office and the Unemployment Insurance Commission. The work is in progress.

BURLINGTON

Post Office—A contract was awarded in January, 1959, to Wilchar Construction Limited for the construction of a one-storey Post Office building, 89 feet wide and 107 feet long, with basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

CALLANDER

Post Office—A contract was awarded in November, 1958, to Farquhar Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

CHALK RIVER

Post Office—A contract was awarded in December, 1958, to R. G. Reinke and Sons Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

CHATHAM

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to Mr. William L. Green for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long and the depth for the residence is 25 feet and 33 feet for the annex. The building which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

DEEP RIVER

Federal Building—A contract was awarded in July, 1958, to R. G. Reinke and Sons Limited for the construction of a one-storey Federal building, 45 feet wide and 54 feet long, without basement. The structure is supported by a concrete foundation, is of wood construction throughout and is covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

FOREST

Federal Building—A contract was awarded in April, 1958, to Ross Urquhart Construction Company Limited for the construction of a one-storey addition to this building including alterations and improvements to the existing building. The addition is 24 feet wide and 58 feet long. The structure, which is supported by a concrete foundation, is of steel construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work was completed in March, 1959.

FORT ERIE

Animal Inspection and Quarantine Station—A contract was awarded in December, 1958, to Guy Violino Construction Limited for the construction of a one-storey, L-shaped Animal Inspection and Quarantine station, without basement, one wing being 32 feet wide and 68 feet long and the other 25 feet wide and 26 feet long. The structure is supported by a concrete block foundation and is of concrete block construction. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the Department of Agriculture. The work is in progress.

GUELPH

Federal Building—A contract was awarded in May, 1958, to Dunker Construction Limited for the construction of a two-storey, L-shaped, Federal Building, with basement, one wing being 40 feet wide and 41 feet long, and the other 63 feet wide and 105 feet long. The structure is supported by a concrete foundation and is of concrete and structural steel construction with limestone veneer and enamelled panels on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Citizenship and Immigration, Labour, Veterans' Affairs, Agriculture, Post Office, Public Works, and the Unemployment Insurance Commission. The work is in progress.

HANMER

Post Office—A contract was awarded in November, 1958, to The Foundation Company of Ontario Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is

supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

HASTINGS

Post Office—A contract was awarded in November, 1958, to Evan S. Martin Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

HESPELER

Federal Building—A contract was awarded in April, 1958, to Albin Sponner for the construction of a one-storey addition to this building including alterations and improvements to the existing building. The addition is 36 feet wide and 49 feet long. The structure, which is supported by a concrete foundation, is of steel construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work was completed in March, 1959.

LEAMINGTON

Post Office—A contract was awarded in June, 1958, to Granite Construction Limited for the construction of a one-storey Post Office building, 89 feet wide and 103 feet long, with basement. The structure is supported by a concrete foundation and is of concrete construction with brick and artificial granite on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

MARKHAM

Post Office—A contract was awarded in December, 1958, to Ruliff Gross Construction Company Limited for the construction of a one-storey Post Office building, 53 feet wide and 71 feet long, without basement. The structure is supported by a concrete foundation and is of wood and concrete block construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

MARMORA

Post Office—A contract was awarded in December, 1958, to Colt Contracting Company Limited for the construction of a one-storey Post Office building, 38 feet wide and 42 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

NEW CREDIT

Central Indian Day School—A contract was awarded in April, 1958, to Leo Wilkovics for the construction of a one-storey school building, 48 feet wide and 114 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The

roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Citizenship and Immigration. The work was completed in March, 1959.

OTTAWA

Post Office Buildings—(Riverside Drive)—A contract was awarded in November, 1958, to George A Crain and Sons Limited for the construction of three buildings, namely, Administration Building, Financial Building and Purchasing and Stationery Building.

The Administration building has nine storeys, 72 feet wide and 264 feet long, with basement. The structure is supported by a concrete foundation and is of reinforced concrete construction with brick, stone and porcelain enamel on the exterior walls. The roof is flat and covered with tar and gravel.

The Financial building has two storeys, 72 feet wide and 335 feet long, with basement. The structure is supported by a concrete foundation and is of reinforced concrete construction with brick, stone and porcelain enamel on the exterior walls. The roof is flat and covered with tar and gravel.

The Purchasing and Stationery building has one storey, 144 feet wide and 144 feet long, with basement. The structure is supported by a concrete foundation and is of reinforced concrete construction with brick and stone on the exterior walls. The roof is flat and covered with tar and gravel.

The buildings will provide accommodation for the Post Office Department. The work is in progress.

Communications Building (N.R.C.)—A contract was awarded in February, 1959, to Perini Limited for the construction of an L-shaped four-storey building, with basement; one wing being 62 feet wide and 168 feet long, and the other 62 feet wide and 315 feet long. The structure is supported by concrete piles and is of reinforced concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the National Research Council. The work is in progress.

No. 2 Finance Building (Tunney's Pasture)—A contract was awarded in August, 1958, to Ron Engineering and Construction Company Limited for the construction of a two-storey addition to this building. The addition is 66 feet wide and 161 feet long. The structure, which is supported by a concrete foundation, is of masonry construction throughout with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Department of Finance. The work is in progress.

Government Vehicle Garage (Tunney's Pasture)—A contract was awarded in December, 1958, to A. Lanctot Construction Company Limited for the construction of a one-storey Government Vehicle Garage, 72 feet wide and 202 feet long, without basement. The structure is supported by a concrete foundation and is of concrete block construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of National Health and Welfare, the National Capital Commission and various other government departments. The work is in progress.

Implement and Nursery Storage Building (Central Experimental Farm)—A contract was awarded in November, 1958, to Gillin Engineering and Construction Limited for the construction of a one and one-half storey implement and nursery storage building, 30 feet wide and 75 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout with cement asbestos siding on the exterior walls. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the Department of Agriculture. The work is in progress.

Insurance Building—(Riverside Drive)—A contract was awarded in February, 1959, to Angus Robertson Limited for the construction of a two-storey L-shaped building, with basement; one wing being 85 feet wide and 89 feet long, and the other 51 feet wide and 87 feet long. The structure is supported by a concrete foundation and is of concrete and steel construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Insurance. The work is in progress.

Postal Station "E"—A contract was awarded in February, 1959, to Sirotek Construction Limited for the construction of a two-storey building, with basement, 81 feet wide and 89 feet long with a one-storey attached wing, 36 feet wide and 90 feet long. The structure is supported by a concrete foundation and is of concrete and steel construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

P.B.X. Building (Riverside Drive)—A contract was awarded in July, 1958, to J. E. Copeland Company Limited for the construction of a one-storey P.B.X. building, 36 feet wide and 46 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building is required to service the telephone system in government buildings. The work is in progress.

Surveys and Mapping Building—A contract was awarded in April, 1958, to E. G. M. Cape and Company (1956) Limited for the construction of a nine-storey building, with part-basement, consisting of two sections; one being 142 feet wide and 290 feet long and the other 172 feet wide and 266 feet long. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with felt and gravel. The building will provide accommodation for the Department of Mines and Technical Surveys. The work is in progress.

Riverside Drive (Outside Services)—A contract was awarded in May, 1958, to Thomas Fuller Construction Company Limited for the construction of sewerage and water distribution systems and concrete electrical ducts and service tunnels. The work is in progress.

Central Heating Plant—(Riverside Drive)—A contract was awarded in May, 1958, to Canadian Comstock Company Limited for the mechanical and electrical distribution systems in this building. The work is in progress.

Geological Building—(Booth Street)—A contract was awarded in June, 1958, to Canadian Laboratory Supplies Limited for the supply and installation of laboratory equipment at various floors of the building. The work is in progress.

Commonwealth Air Force Memorial—(Green Island)—A contract was awarded in November, 1958, to J. M. Copeland Company Limited for the construction of a memorial including concrete foundation, stone base walls, stone surrounding walls and central sphere foundation. The work is in progress.

Central Heating Plant (Riverside Drive)—A contract was awarded in July, 1958, to Thomas Fuller Construction Company Limited for the construction of a two-storey central heating plant, with basement, having a main section 66 feet wide and 204 feet long and an adjoining wing 35 feet wide and 144 feet long. The structure is supported by a concrete foundation over piles and is of structural steel construction with masonry exterior walls. The roof is flat and covered with tar and gravel. This building will provide heat to the new buildings in the surrounding area. The work is in progress.

Central Heating Plant (Central Experimental Farm)—A contract was awarded in July, 1958, to Perini Limited for the construction of a new two-storey central heating plant, without basement, having a main section 60 feet wide and 120 feet long and two adjoining wings 24 feet wide and 107 feet long and 20 feet wide and 56 feet long respectively. The structure is supported by a concrete foundation and is of structural steel construction with masonry exterior walls. The roof is flat and covered with tar and gravel. This building will provide heat to the new buildings in the surrounding area. The work is in progress.

OTTERVILLE

Post Office—A contract was awarded in November, 1958, to Gilnesy Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

OWEN SOUND

Detachment Building (R.C.M.P.)—A contract was awarded in June, 1958, to Emerson G. Bauman for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long, and the depth is 25 feet for the residence, and 33 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

PETAWAWA

Staff Apartment Building—(Forest Experimental Station)—A contract was awarded in November, 1958, to Louis Markus and Son Limited for the construction of a two-storey Staff Apartment Building, 27 feet wide and 76 feet long, with half-basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Northern Affairs and National Resources. The work is in progress.

PETERBOROUGH

Detachment Building—(R.C.M.P.)—A contract was awarded in June, 1958, to Michael James Finn for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 33 feet for the annex. The building which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

Unemployment Insurance Commission Building—A contract was awarded in September, 1958, to Mortlock Construction Limited for the construction of a two-storey building, 60 feet wide and 100 feet long, with part-basement. The structure is supported by a concrete foundation and is of concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Unemployment Insurance Commission. The work is in progress.

REXDALE

Post Office—A contract was awarded in March, 1959, to L. C. Scott Construction Company Limited for the construction of a one-storey Post Office building, 88 feet wide and 106 feet long, with part-basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

ROCKCLIFFE

Administration Building (R.C.M.P.—A contract was awarded in September, 1958, to Sirotek Construction Limited for the construction of an Administration Building for the R.C.M.P. It is a one-storey building, 48 feet wide and 114 feet long, without basement. The building, which is supported by a concrete foundation, is of concrete construction throughout and covered with brick. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

SCARBOROUGH

Post Office—A contract was awarded in February, 1959, to Steven Kovacs for the construction of a one-storey addition to this building including alterations and improvements to the existing building. The addition is 48 feet wide and 100 feet long. The structure, which is supported by a concrete foundation, is of masonry construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

SMITHFIELD

Food Processing Laboratory—A contract was awarded in May, 1958, to the Tetham Company Limited for the construction of a one-storey Food Processing Laboratory, 48 feet wide and 105 feet long, with half-basement. The structure is supported by a concrete foundation and is of masonry construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work is in progress.

SPANISH

Post Office—A contract was awarded in December, 1958, to Hill-Clark-Francis Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

STOUFFVILLE

Federal Building—A contract was awarded in March, 1959, to K. W. Betz Construction Company Limited for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is 28 feet wide and 36 feet long. The structure, which is supported by a concrete foundation, is of concrete construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

STRATFORD

Federal Building—A contract was awarded in June, 1958, to The Ellis-Don Limited for the construction of a two-storey federal building, 103 feet wide and 133 feet long, with basement. The structure is supported by a concrete foundation and is of concrete construction with brick and stone on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Citizenship and Immigration, Agriculture, Labour, Public Works, National Revenue, Post Office and Unemployment Insurance Commission. The work is in progress.

SUDBURY

Detachment Building (R.C.M.P.)—A contract was awarded in July, 1958, to Hill-Clark-Francis Limited for the construction of a Detachment building for the R.C.M.P. It is a two-storey residence, with basement, having a two-storey office and residence annex and a separate three-car garage. The building is 67 feet long and the depth is 25 feet for the residence, and 44 feet for the annex. The garage is 23 feet wide and 38 feet long. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

THORNBURY

Post Office—A contract was awarded in November, 1958, to Carman J. Lougheed for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

TIMMINS

Detachment Building (R.C.M.P.)—A contract was awarded in August, 1958, to Hill-Clark-Francis Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 79 feet long and the depth is 25 feet for the residence and 46 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and is covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

Federal Building—A contract was awarded in December, 1958, to Betteridge Smith Construction Company Limited for the construction of a two-storey L-shaped Federal Building with basement, one wing being 59 feet wide and 112 feet long and the other 68 feet wide and 75 feet long. The structure is supported by a concrete foundation and is of concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Citizenship and Immigration, National Revenue (Customs), Post Office and Unemployment Insurance Commission. The work is in progress.

TORONTO

Postal Station "Q"—A contract was awarded in October, 1958, to Louis Donolo (Ontario) Limited for the construction of a ten-storey addition, with basement, to the building including alterations and improvements to the existing building. The addition is 135 feet wide and 177 feet long. The structure, which

is supported by a concrete foundation, is of steel construction throughout with masonry exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

WELLESLEY

Post Office—A contract was awarded in November, 1958, to L. Riehl and Son for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

WINDSOR

Federal Building—A contract was awarded in November, 1958, to Eastern Construction Company Limited for the construction of a four-storey addition to the building including alterations and improvements to the existing building. The addition is 92 feet wide and 290 feet long. The structure, which is supported by a concrete foundation, is concrete construction with face brick and metal panels on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

WYOMING

Post Office—A contract was awarded in November, 1958, to Shether Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

GENERALLY

Sundry repairs, renovations and improvements were made to the following public buildings under contracts having a value of \$5,000.00 and over:

Ottawa.....	Central Heating Plant Booth Street (New Boiler).....	John Colford Contracting Company Limited.
Ottawa.....	House of Commons—(Sound Equipment Room, etc.).....	Shore and Horwitz Construction Com- pany Limited.
Ottawa.....	Jackson Building (Repairs due to explosion).....	A. Bruce Benson Limited.
Ottawa.....	Central Heating Plant Cliff Street (New Boiler).....	John Colford Contracting Company Limited.

MANITOBA

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Carman.....	Federal Building
Winnipeg.....	Post Office Building (Phase 2)
Winnipeg.....	Post Office Building (Mail Handling Equipment)

The following construction project undertaken during previous fiscal years and described in previous years' reports is still in progress:

Winnipeg National Revenue Building

The following construction projects were undertaken during the fiscal year 1958-1959:

ALTONA

Federal Building—A contract was awarded in October, 1958, to A. W. Peterson Construction Company Limited for the construction of a one-storey Federal Building, 45 feet wide and 51 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

BEAUSEJOUR

Detachment Building—(R.C.M.P.)—A contract was awarded in May, 1958, to North American Lumber and Supply Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 47 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

BELMONT

Post Office—A contract was awarded in December, 1958, to Harold Stanfield Box for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

BRANDON

Research Piggery (Experimental Farm)—A contract was awarded in December, 1958, to R. E. Turner for the construction of a one-storey L-shaped research piggery building, without basement; the main wing being 30 feet wide and 112 feet long and the other 31 feet wide and 62 feet long. The structure is supported by a concrete foundation and is of wood and concrete block construction. The roof is pitched and covered with aluminum shingles. The building will be used by the Department of Agriculture. The work is in progress.

FISHER RIVER

Nurses' Residence—A contract was awarded in October, 1958, to Louis Ducharme and Association Limited for the construction of a Nurses' Residence consisting of a two-storey building, without basement, and a one-storey wing, without basement. The two-storey building is 37 feet wide and 85 feet long and the one-storey wing is 33 feet wide and 49 feet long. The structure is supported by a concrete foundation, is of wood construction throughout, and the exterior walls are covered with asbestos shingles. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of National Health and Welfare. The work is in progress.

GLADSTONE

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to G. Peterson Construction for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 66 feet long and the depth for the residence is 24 feet and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

HAMIOTA

Detachment Building (R.C.M.P.)—A contract was awarded in May, 1958, to Jaska Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence, and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

MINIOTA

Post Office—A contract was awarded in November, 1958, to F. A. France Construction Company Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

MINITONAS

Post Office—A contract was awarded in November, 1958, to Freiheit Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

NINETTE

Post Office—A contract was awarded in November, 1958, to Tompkins and Green for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

OTTERBURNE

Post Office—A contract was awarded in December, 1958, to Armand Poirier for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The new building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

PINE FALLS

Nurses' Residence—A contract was awarded in October, 1958, to North American Buildings Limited for the construction of a two-storey building, 37 feet wide and 76 feet long, with basement. The structure, which is supported by a concrete foundation, is of wood construction throughout and the exterior walls are covered with asbestos shingles. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of National Health and Welfare. The work is in progress.

PORTAGE LA PRAIRIE

Federal Building—A contract was awarded in November, 1958, to Pearson Construction Company Limited for the construction of a two-storey federal building, 82 feet wide and 112 feet long, with basement. The structure is supported by a concrete foundation and is of concrete construction with brick and stone on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Health and Welfare, Citizenship and Immigration, Agriculture, Post Office and the Unemployment Insurance Commission. The work is in progress.

RESTON

Detachment Quarters—(R.C.M.P.)—A contract was awarded in January, 1959, to V. J. Sigardson & Son for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long, and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and is covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

RIVERS

Federal Building—A contract was awarded in January, 1959, to Rivers Cabinet and Builders Surplus Limited for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is T-shaped; one wing being 18 feet wide and 29 feet long, and the other 10 feet wide and 16 feet long. The structure, which is supported by a concrete foundation, is of masonry construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

SELKIRK

Detachment Quarters (R.C.M.P.)—A contract was awarded in November, 1958, to North American Buildings Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 50 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

STE. ROSE DU LAC

Post Office—A contract was awarded in November, 1958, to Freiheit Construction Limited for the construction of a new one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by

a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

TRANSCONA

Post Office—A contract was awarded in November, 1958, to Wyatt Construction Company Limited for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is 35 feet wide and 60 feet long. The structure, which is supported by a concrete foundation, is of concrete construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

WINNIPEG

Double Houses—(R.C.M.P.)—A contract was awarded in November, 1958, to Fraser Construction Company Limited for the construction of three buildings to be used as Married Quarters for the R.C.M.P. Each one is a two-storey building, 26 feet wide and 53 feet long, with basement. Each building is supported by a concrete foundation and is of wood construction throughout, covered with brick veneer. The roofs are pitched and covered with asphalt shingles. The buildings will provide accommodation for the R.C.M.P. The work is in progress.

WINNIPEG

Headerhouse and Science Service Laboratory—A contract was awarded in April, 1958, to Peter Leitch Construction Limited for the construction of a one-storey headerhouse and science service laboratory, 27 feet wide and 105 feet long, with basement. The structure is supported by a concrete foundation and is of reinforced concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work was completed in March, 1959.

WHITEMOUTH

Detachment Building—(R.C.M.P.)—A contract was awarded in May, 1958, to North American Buildings Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex, without basement. The building is 66 feet long and the depth is 24 feet for the residence and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

GENERALLY

Sundry repairs, renovations and improvements were made to the following public buildings under contracts having a value of \$5,000.00 and over:

Boissevain....	Quarantine Station.....	Gustave Verbeke
Winnipeg....	Science Service Laboratory.....	Peter Leitch Construction Limited.

SASKATCHEWAN

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Hafford.....	Detachment Building (R.C.M.P.)
North Battleford.	Federal Building
Radisson.....	Detachment Building (R.C.M.P.)
Regina.....	Barracks Block "B", (R.C.M.P.)
Regina.....	Officers' Mess Building, (R.C.M.P.)
Regina.....	Barracks (R.C.M.P.), Water Softener
Swift Current....	Federal Building
Weyburn.....	Federal Building

The following construction projects were undertaken during the fiscal year 1958-1959:

ASSINIBOIA

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to Pals Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, with a one-storey office and garage annex. The building is 66 feet long and the depth for the residence is 24 feet and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

CANORA

Federal Building—A contract was awarded in June, 1958, to Matheson Brothers Limited for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is 21 feet wide and 34 feet long. The structure, which is supported by concrete blocks, is of masonry construction throughout with face brick and terra cotta on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work was completed in March, 1959.

Detachment Building (R.C.M.P.)—A contract was awarded in May, 1958, to C. M. Miners Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, with a one-storey office and two-car garage annex. The building is 79 feet long and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

CUPAR

Post Office—A contract was awarded in May, 1958, to Theodore Francis Fordou for the construction of a one-storey Post Office building, 28 feet wide and 35 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in January, 1959.

ELROSE

Post Office—A contract was awarded in December, 1958, to Rittinger Construction Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

FROBISHER

Post Office—A contract was awarded in November, 1958, to Weyburn Builders and Suppliers Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

HANLEY

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to Shoquist Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence and has a one-storey office and garage, with basement. The building is 67 feet long and the depth for the residence is 25 feet and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

INDIAN HEAD

Headerhouse—A contract was awarded in July, 1958, to Gall's Lumber Yard for the construction of a one-storey headerhouse, 24 feet wide and 56 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with stucco finish on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work was completed in March, 1959.

KERROBERT

Detachment Building (R.C.M.P.)—A contract was awarded in May, 1958, to Wolfe Construction for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

MAIDSTONE

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to C. M. Miners Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 66 feet long and the depth for the residence is 24 feet and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

MEADOW LAKE

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to Mr. Olaf Lidfors for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, with a one-storey office and two-car garage annex. The building is 67 feet long and the depth for the residence is 25 feet and 47 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

MOOSE JAW

Federal Building—A contract was awarded in March, 1959, to P. W. Graham and Sons Limited for the construction of a one and one-half storey, L-shaped, Federal Building, with part-basement, one wing being 128 feet wide and 157 feet long, and the other 65 feet wide and 87 feet long. The structure is supported by a concrete foundation and is of concrete construction with brick, granite and aluminum on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Labour, Agriculture, Public Works, Post Office and the Unemployment Insurance Commission. The work is in progress.

Detachment Building—(R.C.M.P.)—A contract was awarded in December, 1958, to Bird Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has an annex with a separate garage. The building is 67 feet long and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

NIPAWIN

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to C. M. Miners Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long, and the depth for the residence is 25 feet and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

PREECEVILLE

Federal Building—A contract was awarded in January, 1959, to Matheson Brothers Limited for the construction of a Federal Building, 31 feet wide and 41 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Veterans Affairs and Post Office. The work is in progress.

RADVILLE

Post Office—A contract was awarded in June, 1958, to Swertz Brothers Construction Limited for the construction of a one-storey Post Office building, 46 feet wide and 38 feet long, without basement. The structure is supported by a concrete foundation, is of wood construction throughout, and is covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in February, 1959.

REGINA

Inspectors' Residences (R.C.M.P.)—A contract was awarded in April, 1958, to Bird Construction Company Limited for the construction of five two-storey buildings, with basements, each 24 feet wide and 32 feet long. The structures are supported by concrete foundations and are of wood construction with brick on the exterior walls. The roofs are pitched and covered with asphalt shingles. The buildings will provide accommodation for the Royal Canadian Mounted Police. The work was completed in December, 1958.

SPIRITWOOD

Post Office—A contract was awarded in November, 1958, to Clifton Construction Company for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with stucco on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

STRASBOURG

Post Office—A contract was awarded in November, 1958, to Holterman Construction for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

WATSON

Post Office—A contract was awarded in November, 1958, to Little-Borland and Company Limited for the construction of a one-storey Post Office building, 36 feet wide and 39 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

WHITEWOOD

Federal Building—A contract was awarded in April, 1958, to Bird Construction Company Limited for the construction of a one-storey Federal Building, 37 feet wide and 41 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Veterans Affairs and Post Office. The work was completed in December, 1958.

ALBERTA

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Athabasca.....	Detachment Building (R.C.M.P.)
Banff.....	Workshop Building
Calgary.....	Federal Building (Site)
Edmonton.....	Federal Building
Lethbridge.....	Federal Building (Addition)
Lethbridge.....	Poultry House, Brooder House and Cold Room Building
Lacombe.....	Office and Laboratory (Equipment)
Manyberries.....	Office and Dwelling

The following construction project undertaken during previous fiscal years and described in previous years' reports is still in progress:

Ermineskin..... Roman Catholic School

The following construction projects were undertaken during the fiscal year 1958-1959:

ACME

Post Office—A contract was awarded in November, 1958, to Greene Construction Company for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

AIRDRIE

Post Office—A contract was awarded in November, 1958, to New West Construction Company Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

BANFF

Staff Residence—A contract was awarded in June, 1958, to Hubert W. Gooder for the construction of a one-storey staff residence, 32 feet wide and 37 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the National Research Council. The work was completed in March, 1959.

BARONS

Detachment Building—(R.C.M.P.)—A contract was awarded in May, 1958, to Bird Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long, and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in December, 1958.

BLACKIE

Post Office—A contract was awarded in November, 1958, to New West Construction Company Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

BOW ISLAND

Post Office—A contract was awarded in November, 1958, to Johnson Construction Company Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

CALGARY

Postal Terminal—A contract was awarded in November, 1958, to Burns and Dutton Concrete and Construction for the construction of a four-storey L-shaped building, with basement, one wing being 128 feet wide and 189 feet long, and the other 46 feet wide and 103 feet long. The structure is supported by a concrete foundation and is of concrete and structural steel construction with stone veneer and ceramic tile on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

CARDSTON

Federal Building—A contract was awarded in December, 1958, to Holte and Nordlund for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is 33 feet wide and 51 feet long. The structure, which is supported by a concrete foundation, is of masonry construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

Teachers' Residence and School—A contract was awarded in November, 1958, to Oland Construction Limited for the construction of a teachers' residence consisting of a two-storey double house, with basement, 24 feet wide and 50 feet long, and a two-storey L-shaped residential school, with basement; the main wing being 57 feet wide and 181 feet long and the other wing 61 feet wide and 81 feet long. The structures are supported by concrete foundations and are of wood construction throughout with asbestos shingles on the exterior walls. The roof of the school is flat and covered with tar and gravel and the roof of the teachers' residence is pitched and covered with asphalt shingles. The buildings will provide accommodation for the Department of Citizenship and Immigration. The work is in progress.

CLYDE

Post Office—A contract was awarded in November, 1958, to Art Erickson, Thomas Koziak, and Lionel Magneau for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

COCHRANE

Post Office—A contract was awarded in December, 1958, to Borger Brothers Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with stucco exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

COLEMAN

Post Office—A contract was awarded in April, 1958, to Holte and Nordlund Construction for the construction of a one-storey Post Office building, 36 feet wide and 47 feet long, without basement. The structure is supported by a concrete block foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in November, 1958.

CORONATION

Detachment Building (R.C.M.P.)—A contract was awarded in May, 1958, to C. Burrows Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

CROSSFIELD

Detachment Building (R.C.M.P.)—A contract was awarded in November, 1958, to Bird Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence, and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and is covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

DERWENT

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to Adanac Contracting and Development Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 28 feet for the annex. The structure, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

DRUMHELLER

Detachment Building (R.C.M.P.)—A contract was awarded in July, 1958, to Greene Construction Company for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a part two-storey office and residence annex and a separate three-car garage. The building is 67 feet long and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

ELK ISLAND (NATIONAL PARK)

Semi-Detached Staff Residence and Keeper's Cabin—A contract was awarded in August, 1958, to Edmonton Construction Company Limited for the following projects:

Semi-Detached Staff Residence: It is a two-storey building, with basement, 24 feet wide and 50 feet long having a separate two-car garage, 11 feet wide and 20 feet long.

Keeper's Cabin: It is a one-storey building, 20 feet wide and 20 feet long, without basement.

The structures are supported by concrete foundations and are of wood construction throughout. The roofs are pitched and covered with cedar shingles. The buildings will provide accommodation for the Department of Northern Affairs and National Resources. The work is in progress.

EVANSBURG

Detachment Building (R.C.M.P.)—A contract was awarded in December, 1958, to Waterloo Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

FORT CHIPEWAN

School, Residence and Power House—A contract was awarded in September, 1958, to Edmonton Construction Company Limited for the construction of the following projects:

School: It is a two-storey building, 57 feet wide and 119 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with asbestos shingles on the exterior walls. The roof is flat and covered with tar and gravel.

Residence: It is a two-storey building, 24 feet wide and 32 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

Power House: It is a one-storey building, 20 feet wide and 25 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel.

The buildings will provide accommodation for the Department of Citizenship and Immigration. The work is in progress.

FORT VERMILION

Detachment Building (R.C.M.P.)—A contract was awarded in January, 1959, to Eric R. French and Sons Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence with basement, and has a one-storey office and garage annex. The building is 66 feet long and the depth is 24 feet for the residence and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

GLEICHEN

Detachment Building (R.C.M.P.)—A contract was awarded in December, 1958, to Southern Alberta Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement,

and has a one-storey office annex. The building is 67 feet long and the depth is 25 feet for the residence and 47 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

GRANDE PRAIRIE

Federal Building—A contract was awarded in November, 1958, to Quam Construction Company for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is 19 feet wide and 63 feet long. The structure, which is supported by a concrete foundation is of concrete construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

HIGH RIVER

Federal Building—A contract was awarded in November, 1958, to Oland Construction Limited for the construction of a one-storey addition to this building including alterations and improvements to the existing building. The addition is 28 feet wide and 40 feet long. The structure, which is supported by a concrete foundation, is of concrete construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

LAC LA BICHE

Detachment Building—(R.C.M.P.)—A contract was awarded in October, 1958, to Mr. Jacob Brost for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 66 feet long and the depth for the residence is 24 feet and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

MANNING

Detachment Building—(R.C.M.P.)—A contract was awarded in October, 1958, to Lloyd Christenson Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 66 feet long and the depth is 24 feet for the residence and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

MORRIN

Post Office—A contract was awarded in November, 1958, to Greene Construction Company for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout, with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

PEACE RIVER

Double House (R.C.M.P.)—A contract was awarded in December, 1958, to Lahey Construction Limited for the construction of Married Quarters for the R.C.M.P. It is a two-storey building, 24 feet wide and 52 feet long, with basement. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with wood siding. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the R.C.M.P. The work is in progress.

PINCHER CREEK

Detachment Building (R.C.M.P.)—A contract was awarded in November, 1958, to Southern Alberta Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 47 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

PROVOST

Detachment Building (R.C.M.P.)—A contract was awarded in December, 1958, to C. Burrows Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth is 26 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

SMOKY LAKE

Post Office—A contract was awarded in November, 1958, to A. V. Carlson Limited for the construction of a one-storey Post Office building, 31 feet wide and 34 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

SPIRIT RIVER

Detachment Building (R.C.M.P.)—A contract was awarded in December, 1958, to Van Vliet Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 66 feet long and the depth is 24 feet for the residence and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

STAVELY

Post Office—A contract was awarded in December, 1958, to Borger Brothers Limited for the construction of a one-storey Post Office building, 23 feet wide and 35 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

VEGREVILLE

Office, Laboratory and Headerhouse—A contract was awarded in June, 1958, to C. H. Whiteham Limited for the construction of a one and one-half storey office, laboratory and headerhouse, 31 feet wide and 53 feet long, with basement. The structure is supported by a concrete foundation, is of wood construction throughout with stucco finish on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work is in progress.

VERMILION

Federal Building—A contract was awarded in April, 1958, to K. G. Myers Construction Limited for the construction of a one-storey federal building, with half-basement, 66 feet wide and 78 feet long. The structure is supported by a concrete foundation and is of steel construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Veterans Affairs, Agriculture and Post Office. The work was completed in March, 1959.

VULCAN

Detachment Building (R.C.M.P.)—A contract was awarded in May, 1958, to Bird Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, with a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in January, 1959.

VAUXHALL

Headerhouse—A contract was awarded in March, 1959, to W. Cooper Construction for the construction of a one-storey building, 22 feet wide and 54 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with stucco on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work is in progress.

WAINWRIGHT

Federal Building—A contract was awarded in November, 1958, to Quam Construction Company for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is 30 feet wide and 52 feet long. The structure, which is supported by a concrete foundation, is of concrete construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work is in progress.

YOUNGSTOWN

Post Office—A contract was awarded in April, 1958, to Seland Construction for the construction of a one-storey Post Office building, 26 feet wide and 33 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in September, 1958.

GENERALLY

Sundry repairs, renovations and improvements were made to the following public building under contracts having a value of \$5,000.00 and over:
 Calgary..... Customs Building. Poole Construction Company Limited.

BRITISH COLUMBIA

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Prince George....	Detachment Building (R.C.M.P.)
Vancouver.....	Technological Station
Vancouver.....	Postal Station (Hollyburn)
Victoria.....	Headerhouse Building
Victoria.....	Astrophysical Laboratory (Dome)
Victoria.....	Federal Building (Addition)

The following construction project undertaken during previous fiscal years and described in previous years' reports is still in progress:

Vancouver.....	Federal Building (Tunnel)
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The following construction projects were undertaken during the fiscal year 1958-1959:

AIYANSH

Health Centre, School, Residences, Power House: A contract was awarded in July, 1958, to Stange Construction Company Limited for the following projects:

Health Centre—It is a one-storey building, 28 feet wide and 54 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

School—It is a one-storey three-classroom building, 58 feet wide and 102 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel.

Residences—There are two one-storey buildings, each 29 feet wide and 34 feet long, without basement. The structures are supported by a concrete pad and are of wood construction throughout. The roofs are pitched and covered with asphalt shingles.

Power House—It is a one-storey building, 16 feet wide and 16 feet long, without basement. The structure is supported by a concrete pad and is of wood construction throughout. The roof is flat and covered with tar and gravel.

These buildings will provide accommodation for the Department of Citizenship and Immigration. The work is in progress.

BELLA COOLA

Post Office—A contract was awarded in January, 1959, to Basarab Construction Company Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work is in progress.

Detachment Building (R.C.M.P.)—A contract was awarded in June, 1958, to Basarab Construction Company Limited for the construction of a Detachment

Building for the R.C.M.P. It is a two-storey residence, with basement, and has a one-storey office and garage annex. The building is 66 feet long and the depth is 24 feet for the residence and 43 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in February, 1959.

CAMPBELL RIVER

Federal Building—A contract was awarded in May, 1958, to Orion Builders Limited (now D. Robinson Construction) for the construction of a two-storey federal building, 87 feet wide and 111 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Public Works, Fisheries, Citizenship and Immigration and the Post Office. The work is in progress.

CASTLEGAR

Detachment Building (R.C.M.P.)—A contract was awarded in November, 1958, to Columbia Builders Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence with basement, with a one-storey office and garage annex. The building is 67 feet and the depth is 25 feet for the residence and 47 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

COMOX

Federal Building—A contract was awarded in April, 1958, to A. V. Richardson Limited for the construction of a one-storey federal building, 40 feet wide and 44 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Fisheries and Post Office. The work was completed in March, 1959.

DUNCAN

Federal Building—A contract was awarded in June, 1958, to A. V. Richardson Limited for the construction of a one-storey federal building, 83 feet wide and 91 feet long, with half-basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of Public Works, Veterans Affairs, Fisheries and Post Office. The work is in progress.

FORT LANGLEY

Post Office—A contract was awarded in December, 1958, to Greenall Brothers Limited for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

FORT NELSON

Detachment Building (R.C.M.P.)—A contract was awarded in June, 1958, to Bennett and White Construction Company Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

FORT ST. JOHN

Detachment Building (R.C.M.P.)—A contract was awarded in August, 1958, to C. J. Oliver Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, with a part two-storey residence, office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

GANGES

Detachment Building (R.C.M.P.)—A contract was awarded in November, 1958, to Peerless Contracting Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement and has a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

KEREMEOS

Detachment Building (R.C.M.P.)—A contract was awarded in July, 1958, to Mr. John Berg for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, with a one-storey office and garage annex. The building is 69 feet long and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in February, 1959.

LOWER POST

Indian Residential School—A contract was awarded in September, 1958, to Dawson and Hall Limited for the construction of a one-storey addition to the building including alterations and improvements to the existing building. The addition is 92 feet wide and 102 feet long. The structure, which is supported by a concrete foundation, is of wood construction with asbestos shingles on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Department of Citizenship and Immigration. The work is in progress.

100 MILE HOUSE

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to Howe Construction Company Limited for the construction of a

Detachment Building for the R.C.M.P. It is a two-storey residence with basement, having a one-storey office and two-car garage annex. The building is 67 feet long and the depth for the residence is 25 feet and 47 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

NELSON

Administration Building—(R.C.M.P.)—A contract was awarded in January, 1959, to Imperial Builders Limited for the construction of a Sub-Division Administration Building for the R.C.M.P. It is a three-storey building, with basement, 50 feet wide and 110 feet long, and has a one-storey adjoining garage, 21 feet wide and 110 feet long. The building, which is supported by a concrete foundation, is of concrete construction throughout and covered with architectural concrete. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

PENTICTON

Radio Astronomy Project—A contract was awarded in November, 1958, to Sørensen Construction Company Limited for the following projects:

Office and Central Building—It is a one-storey building, 39 feet wide and 72 feet long, with basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel.

Workshop—It is a one-storey building, 36 feet wide and 48 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel.

Caretaker's House—It is a one-storey building, 28 feet wide and 38 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

Seismograph Vault—It is a one-storey building, 20 feet wide and 28 feet long, without basement. The structure is supported by a concrete foundation and is of concrete construction with brick on the exterior walls. The roof is flat and covered with tar and gravel.

Pumphouse—It is a one-storey building, 16 feet wide and 20 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel.

These buildings will provide accommodation for the Department of Mines and Technical Surveys. The work is in progress.

PITT MEADOWS

Post Office—A contract was awarded in December, 1958, to D. C. Festing for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

PORT ALBERNI

Federal Building—A contract was awarded in June, 1958, to Orion Builders Limited (Now D. Robinson Construction) for the construction of a two-storey federal building, 115 feet wide and 123 feet long, with basement. The structure

is supported by a concrete foundation and is of concrete construction with stone, concrete and porcelain enamel on the exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Departments of National Revenue, Citizenship and Immigration, Fisheries, Public Works, Post Office and the Unemployment Insurance Commission. The work is in progress.

PRINCE GEORGE

Married Quarters—(R.C.M.P.)—A contract was awarded in December, 1958, to Howe Construction Company Limited for the construction of three Married Quarters buildings for the R.C.M.P. They are two-storey buildings, 24 feet wide and 52 feet long, with basement. They are supported by a concrete foundation and are of wood construction throughout. The roofs are pitched and covered with asphalt shingles. The buildings will provide accommodation for the R.C.M.P. The work is in progress.

SHAWINIGAN LAKE

Detachment Building (R.C.M.P.)—A contract was awarded in October, 1958, to Seaward Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth for the residence is 25 feet and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work is in progress.

SIDNEY

Federal Building—A contract was awarded in April, 1958, to E. J. Hunter and Sons for the construction of an L-shaped one-storey addition to the building including alterations and improvements to the existing building. One wing of the addition is 12 feet wide and 51 feet long, and the other 27 feet wide and 32 feet long. The structure, which is supported by a concrete foundation, is of steel with brick veneer on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Post Office Department. The work was completed in March, 1959.

SPENCES BRIDGE

Detachment Building (R.C.M.P.)—A contract was awarded in June, 1958, to C. J. Oliver Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a one-storey office and garage annex. The building is 67 feet long and the depth is 25 feet for the residence and 28 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with brick veneer. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in March, 1959.

VANCOUVER

Science Service Laboratory—A contract was awarded in October, 1958, to E. H. Shockley and Son Limited for the construction of a Science Service Laboratory consisting of a three-storey building, without basement, connected by a passage-way to a two-storey building, without basement. The three-storey building is 63 feet wide and 265 feet long, and the two-storey building is 44 feet wide and 92 feet long. The structure is supported by a concrete foundation and is of reinforced concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Agriculture. The work is in progress.

WELLINGTON

Post Office—A contract was awarded in November, 1958, to W. J. Dick Construction for the construction of a one-storey Post Office building, 25 feet wide and 29 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Post Office Department. The work was completed in March, 1959.

GENERALLY

Sundry repairs, renovations and improvements were made to the following public buildings under contracts having a value of \$5,000.00 and over (including other minor projects):

Kitimat.....	Garages for D.P.W. Houses....	Dewey Devries
Nanaimo.....	Pacific Biological Station.....	A & B Construction Company Limited
Nanaimo.....	Pacific Biological Station Lean-To and Access Stairs.....	Quast and Walmsley Construction Company
New Westminster.	Federal Building.....	Fred Welsh & Son Limited
Vancouver.....	Forest Products Laboratory....	Turnbull and Gale Construction Company Limited
Vancouver.....	University of British Columbia (Government Laboratories)..	Tide Company (B.C.) Limited

YUKON AND NORTHWEST TERRITORIES

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

Dawson.....	Detachment Building (R.C.M.P.)
Hay River.....	Teachers' Quarters and Dwelling
Whitehorse.....	Office Building
Whitehorse.....	Superintendent's Residence
Yellowknife.....	High School, Hostel Dormitory Building and Various Buildings.

The following construction projects undertaken during previous fiscal years and described in previous years' reports are still in progress:

Aklavik.....	Hostels and School
Fort Smith.....	Frame Buildings

The following construction projects were undertaken during the fiscal year 1958-1959:

FORT PROVIDENCE

Housing, Warehouse and School—A contract was awarded in August, 1958, to Edmonton Construction Company Limited for the following projects:

Housing—It is a two-storey double-house, 24 feet wide and 50 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

Warehouse—It is a one-storey building, 16 feet wide and 34 feet long, without basement. The structure is of wood construction throughout with a concrete floor. The roof is pitched and covered with asphalt shingles.

School—It is a one-storey two classroom building, 40 feet wide and 97 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

These buildings will provide accommodation for the Department of Northern Affairs and National Resources. The work is in progress.

FORT SMITH

Single Staff Quarters and Office Building—A contract was awarded in September, 1958, to Yukon Construction Company Limited for the construction of a two-storey Single Staff Quarters, 38 feet wide and 117 feet long, with basement, and a one-storey office building, 31 feet wide and 40 feet long, without basement. The structures are supported by concrete foundations and are of wood construction throughout. The roof of the Staff Quarters is pitched and covered with aluminum shingles and the roof of the office building is pitched and covered with asphalt shingles. The Staff Quarters will provide accommodation for the Department of Northern Affairs and National Resources, and the Office Building will provide accommodation for the Department of Transport. The work is in progress.

Federal Housing—A contract was awarded in August, 1958, to Edmonton Construction Company Limited for the construction of five two-storey double houses, each being 22 feet wide and 48 feet long, with basement. The structures are supported by concrete foundations and are of wood construction throughout. The roofs are pitched and covered with aluminum shingles. The buildings will provide accommodation for the Departments of Citizenship and Immigration, Transport and Northern Affairs and National Resources. The work is in progress.

FORT SIMPSON

School, Hostels, Apartments, etc.—A contract was awarded in September, 1958, to Edmonton Construction Company Limited for the following projects:

School—It is a one-storey building with part-basement, consisting of four wings, 59 feet by 78 feet, 110 feet by 57 feet, 80 feet by 97 feet and 57 feet by 178 feet, respectively. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with aluminum shingles.

Hostel (Roman Catholic)—It is a two-storey building with part-basement, consisting of five wings, 30 feet by 70 feet, 72 feet by 78 feet, 40 feet by 142 feet, 40 feet by 175 feet and 40 feet by 175 feet, respectively. The structure is supported by a concrete foundation and is of wood construction with wood and asbestos cement board on the exterior walls. The roof is pitched and covered with aluminum shingles.

Hostel (Anglican)—It is a one-storey building, with part-basement, consisting of four wings, 29 feet by 63 feet, 40 feet by 77 feet, 40 feet by 104 feet and 40 feet by 223 feet, respectively. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with aluminum shingles.

Four-Apartment Teacherage Building—It is a one-storey building, 33 feet wide and 47 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with aluminum shingles.

Superintendent's Residence—It is a two-storey building, 23 feet wide and 23 feet long, with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with aluminum shingles.

Double Houses—There are two two-storey buildings, each being 22 feet wide and 48 feet long, with basement. Each structure is supported by a concrete foundation and is of wood construction throughout. The roofs are pitched and covered with aluminum shingles.

Double House—It is a two-storey building, 22 feet wide and 48 feet long with basement. The structure is supported by a concrete foundation and is of wood construction throughout. The roof is pitched and covered with aluminum shingles.

Central Heating Plant—It is a one-storey building, 50 feet wide and 62 feet long, without basement. The structure is supported by a concrete foundation and is of wood construction with wood asbestos cement board on the exterior walls. The roof is pitched and covered with aluminum shingles.

The double house will provide accommodation for the Department of Transport. The remaining buildings will provide accommodation for the Department of Northern Affairs and National Resources. The work is in progress.

HAY RIVER

School, House, Warehouse, etc.—A contract was awarded in August, 1958, to Edmonton Construction Company Limited for the following projects:

Addition to Indian Day School—It is a one-storey L-shaped addition to the building. One wing of the addition is 36 feet wide and 119 feet long, and the other, 20 feet wide and 53 feet long. The structure, which is supported by wood piles, is of wood construction throughout. The roof is flat and covered with tar and gravel.

Single House—It is a two-storey L-shaped single house, with one wing being 13 feet wide and 46 feet long, and the other wing 9 feet wide and 25 feet long. The structure is supported by wooden piles and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

Standard Warehouse—It is a one-storey standard warehouse building, 16 feet wide and 34 feet long, without basement. The structure is supported by wooden piles and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

Five-Bay Garage—It is a one-storey building, 25 feet wide and 73 feet long, without basement. The structure is supported by wooden piles, and is of corrugated metal construction. The roof is covered with corrugated metal.

These buildings will provide accommodation for the Department of Northern Affairs and National Resources. The work is in progress.

INUUVIK

Various Buildings—A contract was awarded in June, 1958, to Bird Construction Company Limited for the following projects:

Laundry and Wash House—It is a one-storey building without basement, having a main section, 48 feet wide and 78 feet long, and an attached wing, 48 feet wide and 64 feet long. The structure is supported by wooden piles and is of wood construction throughout. The roof is flat and covered with tar and gravel.

Fire Hall—It is a part one-storey and part two-storey building, 35 feet wide and 54 feet long, without basement. The structure is supported by wooden piles and is of wood construction throughout. The roof of the one-storey section is flat and covered with tar and gravel and the roof of the two-storey section is pitched and covered with asphalt shingles.

Warehouse, Garage, Workshop—It is a one-storey building, 38 feet wide and 68 feet long, without basement. The structure is supported by wooden piles and is of wood construction throughout. The roof is flat and covered with tar and gravel.

Barracks and Cell Block—It is a one-storey building, 38 feet wide and 82 feet long, without basement, having a two-storey annex, 38 feet wide and 78 feet long, without basement. The structure is supported by wooden piles and is of wood construction throughout. The roof over the one-storey section is flat and covered with tar and gravel and the roof over the two-storey section is pitched and covered with asphalt shingles.

Single Staff Quarters—It is a two-storey building, 38 feet wide and 218 feet long, without basement. The structure is supported by wooden piles and is of wood construction throughout. The roof is flat and covered with tar and gravel.

Federal Building—It is a two-storey building, 41 feet wide and 124 feet long, without basement. The structure is supported by wooden piles and is of wood construction throughout. The roof is flat and covered with tar and gravel.

Housing—This housing includes the construction of 122 units comprising four-apartment buildings, three-bedroom single houses and four-bedroom single houses.

Each apartment is a two-storey building, 34 feet wide and 87 feet long, without basement. Each structure is supported by wooden piles and is of wood construction throughout. Each roof is pitched and covered with asphalt shingles.

Each three-bedroom single house is a two-storey building, 28 feet wide and 28 feet long, without basement. The structures are supported by wooden piles and are of wood construction throughout. The roofs are pitched and covered with asphalt shingles.

Each four-bedroom single house is a two-storey building, 24 feet wide and 30 feet long, without basement. The structures are supported by wooden piles and are of construction throughout. Each roof is pitched and covered with asphalt shingles.

NOTE: This contract also included the construction of a hospital, nurses' and ward aides' residence and garage, workshop and morgue building, described under military and other hospitals.

The laundry, wash-house and fire-hall will provide accommodation for the Department of Northern Affairs and National Resources.

The warehouse, garage and workshop, the barracks and cell block will provide accommodation for Royal Canadian Mounted Police.

The remaining buildings will provide accommodation for the Department of Public Works and various other Departments.

The work is in progress.

MAYO

Detachment Building (R.C.M.P.)—A contract was awarded in August, 1958, to U. B. Humphrey Construction Limited for the construction of a Detachment Building for the R.C.M.P. It is a two-storey residence, with basement, having a part two-storey residence, office and garage annex. The building is 79 feet long and the depth is 25 feet for the residence and 44 feet for the annex. The building, which is supported by a concrete foundation, is of wood construction throughout. The roof is flat and covered with tar and gravel. The building will provide accommodation for the R.C.M.P. The work was completed in February, 1959.

WATSON LAKE

Detachment Building (R.C.M.P.)—A contract was awarded in September, 1958, to Dawson and Hall Limited for the construction of a Detachment Building for the R.C.M.P. It is a one and one-half storey residence and office, with basement, 27 feet wide and 55 feet long, having an adjoining two-car garage, 22 feet wide and 24 feet long, without basement, and a separate generator house, 11 feet wide and 16 feet long, without basement. The building, which is supported by a concrete foundation, is of wood construction throughout and covered with asbestos cement siding. The roof is pitched and covered with asphalt shingles. The building will provide accommodation for the R.C.M.P. The work is in progress.

YELLOWKNIFE

Federal Housing Development—A contract was awarded in September, 1958, to Edmonton Construction Company Limited for the construction of eight two-storey double houses, each being 22 feet wide and 48 feet long, with basement. The structures are supported by concrete foundations, and are of wood construction throughout. The roofs are pitched and covered with aluminum shingles. The buildings will provide accommodation for the Departments of Northern Affairs and National Resources, Transport, Public Works, Post Office and Citizenship and Immigration. The work is in progress.

GENERALLY

Sundry repairs, renovations and improvements were made to the following public buildings under contracts having a value of \$5,000.00 and over:

Fort Smith.....	R.C.M.P. Hangar.....	Burns & Dutton Concrete and Construction Company Limited.
Yellowknife.....	Federal Building.....	O. I. Johnson Construction Limited.

MILITARY AND OTHER HOSPITALS

The following construction projects undertaken during the previous fiscal years and described in previous years' reports were completed during the fiscal year 1958-1959:

London, Ontario.....	Stores Building (Westminster Hospital)
Moose Factory, Ontario.....	Improvements (Hospital)
Moose Factory, Ontario.....	Nurses' Residence (Hospital)

The following construction project undertaken during previous fiscal years and described in previous years' reports is still in progress:

Vancouver, B.C.....	Shaughnessy Hospital
---------------------	----------------------

The following construction projects were undertaken during the fiscal year 1958-1959:

LONDON, ONTARIO

Westminster Hospital—Addition to Medical Unit—A contract was awarded in August, 1958, to MacKay-Cocker Construction Limited for the construction of a three-storey addition to the building. The addition is 22 feet wide and 42 feet long. The structure, which is supported by a concrete foundation is of masonry and steel construction with face brick on the exterior walls. The roof is flat and covered with tar and gravel. The addition will provide accommodation for the Department of Veterans' Affairs. The work was completed in March, 1959.

VICTORIA, BRITISH COLUMBIA

Prosthetic Services Building—A contract was awarded in October, 1958, to G. H. Wheaton Limited for the construction of a one-storey Prosthetic Services Building, with one-third basement, 42 feet wide and 144 feet long. The structure is supported by a concrete foundation and is of concrete construction with masonry exterior walls. The roof is flat and covered with tar and gravel. The building will provide accommodation for the Department of Veterans Affairs. The work is in progress.

INUUVIK, YUKON TERRITORY

Hospital Project—A contract was awarded in June, 1958, to Bird Construction Company Limited for the following projects:

Hospital—It is a one-storey building, without basement, with one main section, 53 feet wide and 261 feet long, and six additional wings; three of which are 44 feet wide and 160 feet long, the fourth is 52 feet wide and 94 feet long, the fifth is 46 feet wide and 65 feet long and the sixth is 46 feet wide and 172 feet long. The structure is supported by wooden piles and is of wood construction throughout. The roofs are pitched and covered with asphalt shingles.

Nurses' and Ward Aides' Residence—It is a one-storey building, without basement, comprising a main section, 30 feet wide and 172 feet long and an adjoining wing, 30 feet wide and 82 feet long. The structure is supported by wooden piles and is of wood construction throughout. The roof is pitched and covered with asphalt shingles.

Garage, Workshop and Morgue, etc.—It is a one-storey building, without basement, 28 feet wide and 114 feet long. The structure is supported by wooden piles and is of wood construction throughout. The roof is flat and covered with asphalt shingles.

NOTE: This contract includes the various buildings described under Inuvik as previously noted under public buildings.

The work is in progress.

GENERALLY

Sundry repairs, renovations and improvements were made to the following hospitals under contracts having a value of \$5,000.00 and over:

Halifax, N.S.....	Camp Hill Hospital....	Fundy Construction Company Limited.
Halifax, N.S.....	Camp Hill Hospital....	Standard Construction Limited.
St. John, N.B.....	Lancaster Hospital.....	C. B. George Limited.
Moose Factory, Ont..	Hospital.....	Universal Plumbing and Heating Company Limited.
Winnipeg, Manitoba..	Deer Lodge Hospital....	Malcolm Construction Company Limited.
Edmonton, Alberta...	Colonel Mewburn Wing (University Hospital).	R. V. Coombs Construction Limited.

REPORT OF THE TREASURY OFFICE

Hervé Pratte, Chief Treasury Officer

RECAPITULATION OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA DURING THE FISCAL YEAR ENDING 31 MARCH, 1959

	Dredging	Con- struction and Improvements	Repairs and Main- tenance	Staff and Sundries	Total
	\$	\$	\$	\$	\$
Public Buildings—					
Outside of Canada.....			26,577	167,094	193,671
Newfoundland.....	3,650,557		83,030	556,547	4,290,134
Nova Scotia.....	665,080		191,484	1,117,124	1,973,688
Prince Edward Island.....	36,327		51,581	192,271	280,179
New Brunswick.....	2,256,176		139,841	946,138	3,342,155
Quebec.....	11,696,438		950,882	6,033,668	18,680,988
Ontario.....	36,596,995	3,497,062		20,407,941	60,501,998
Manitoba.....	1,328,471	255,931		1,618,804	3,203,206
Saskatchewan.....	650,613	345,520		1,259,326	2,255,459
Alberta.....	2,269,985	270,041		1,679,259	4,219,285
Yukon and Northwest Territories...	2,229,861	18,246		209,675	2,457,782
British Columbia.....	1,724,890	490,197		2,993,591	5,208,678
Totals.....		63,105,393	6,320,392	37,181,438	106,607,223
HARBOURS AND RIVERS—					
Newfoundland.....	450,739	4,652,464	356,953	117,459	5,577,615
Nova Scotia.....	706,418	2,487,766	634,276	38,604	3,867,064
Prince Edward Island.....	335,693	1,115,057	134,894	53,170	1,638,814
New Brunswick.....	1,128,338	2,584,398	231,039	49,473	3,993,248
Quebec.....	947,614	3,359,854	944,756	291,439	5,543,663
Ontario.....	1,355,623	9,904,310	390,265	136,015	11,786,213
Manitoba.....	195,621	149,917	79,106	54,172	478,816
Saskatchewan.....			8,301		8,301
Alberta.....	134,401	75,400	6,690	24,223	240,714
Yukon and Northwest Territories...	112,644	92,117	33,038	187,739	425,538
British Columbia.....	1,445,212	2,315,358	859,806	751,246	5,371,622
Totals.....	6,812,303	26,736,641	3,679,124	1,703,540	38,931,608
TRANS-CANADA HIGHWAY					
Newfoundland.....		8,941,809			8,941,809
Nova Scotia.....		2,473,725			2,473,725
Prince Edward Island.....		535,115			535,115
New Brunswick.....		11,352,822			11,352,822
Quebec.....					
Ontario.....		15,912,978			15,912,978
Manitoba.....		1,814,518			1,814,518
Saskatchewan.....		168,303			168,303
Alberta.....		4,097,426			4,097,426
British Columbia.....		15,738,083			15,738,083
Total.....		61,034,779			61,034,779
MISCELLANEOUS—					
Ministers' Salary and Motor Car Allowance.....				17,000	17,000
General Administration.....				8,478,743	8,478,743
Fire Prevention.....				168,505	168,505
Testing Laboratories.....				692,450	692,450
Other.....				9,997	9,997
Total.....				9,366,695	9,366,695
Grand Totals.....	6,812,303	150,876,813	9,999,516	48,251,673	215,940,305

NOTE: Details of expenditures covering individual contracts may be found in the Public Accounts for 1958-1959.

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1958-59

Revenue received by the Department of Public Works of Canada during the
fiscal year ending March 31, 1959.

ORDINARY—

PUBLIC BUILDINGS

Rents from Public Buildings and related properties.....	\$ 1,236,163.26
Sales of old furniture, fittings and building material, etc.....	9,398.37
Sales of real estate.....	38,477.40
Water collections—William Head, B.C., pipe line.....	Nil
Commissions from telephone booths in public buildings.....	23,711.59
Refunds against expenditures of previous years.....	2,780,400.76
	<u>\$ 4,088,151.38</u>

ENGINEERING WORKS

Earnings of Dry Docks, etc.—	
Champlain Dry Dock, Lauzon, Que.....	\$ 75,117.75
Lorne Dry Dock, Lauzon, Que.....	44,393.75
Selkirk, Man., Repair Slip.....	2,508.09
Esquimalt, B.C., New Dry Dock.....	164,609.62
	<u>\$ 286,629.21</u>

Revenue from leased works and plants—

Kingston, Ont., Dry Dock, rental.....	\$12,100.00
Ferry privileges.....	297.00
Earnings of dredges and plants.....	90,251.50
	<u>\$ 102,648.50</u>
Rents from water lots, etc.....	104,425.62
Refunds against expenditures of previous years.....	53,311.76
Sundry receipts.....	2,070.80
	<u>\$ 549,085.89</u>

MISCELLANEOUS

Damages to government property.....	\$ 18,201.06
Sundry receipts.....	263,398.06
	<u>\$ 281,599.12</u>

GENERAL SUMMARY

Public Buildings.....	\$ 4,088,151.38
Engineering Works.....	549,085.89
Miscellaneous.....	281,599.12
	<u>\$ 4,918,836.39</u>



CANADA
DEPARTMENT OF PUBLIC WORKS
MAP SHOWING
CENTRES OF ACTIVITY



NATIONAL PARKS

- | | |
|-------------------------|---------------------|
| 1 Terra Nova | 10 Elk Island |
| 2 Cape Breton Highlands | 11 Wood Buffalo |
| 3 Prince Edward Island | 12 Jasper |
| 4 Fundy | 13 Banff |
| 5 St Lawrence | 14 Waterton Lakes |
| 6 Point Pelee | 15 Yoho |
| 7 Georgian Bay | 16 Kootenay |
| 8 Riding Mountain | 17 Glacier |
| 9 Prince Albert | 18 Mount Revelstoke |

LEGEND

- | | |
|---|---|
| District Engineer's Office | 1 |
| District Architect's Office | 2 |
| Trans-Canada Highway Office | 3 |
| Trans-Canada Highway Route | 4 |
| National Parks | 5 |
| Engineering Projects Under Way (over \$100,000) | 6 |
| Architectural Projects Under Way (over \$1,000,000) | 7 |

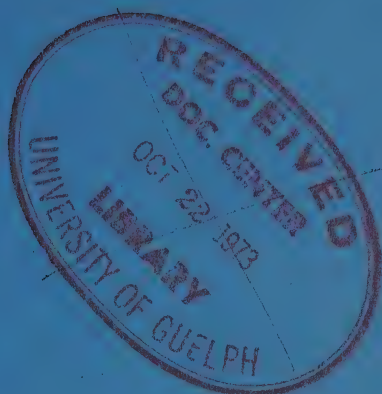


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Publications



REPORT of the DEPARTMENT of PUBLIC WORKS

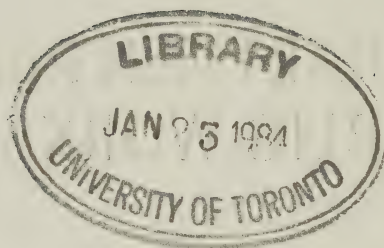
for the fiscal year
ended

MARCH 31,
1960



REPORT of the
DEPARTMENT of
PUBLIC WORKS

for the fiscal year
ended
MARCH 31,
1960



ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1961

FOOTNOTES Cat. No. W1—1960-8

To His Excellency Major-General Georges Vanier, D.S.O., M.C., C.D., Governor-General and Commander-in-Chief of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1960.

Respectfully submitted,

DAVID J. WALKER,
Minister of Public Works.

OTTAWA, October 5, 1960.

The Honourable David J. Walker, Minister of Public Works, Ottawa.

SIR:

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1960.

Your obedient servant,

H. A. YOUNG,
Deputy Minister.

OTTAWA, October 5, 1960.

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

(As of March 31, 1960)

Minister.....	Hon. David J. Walker
Parliamentary Secretary.....	Yvon R. Tassé, M.P.
Executive Assistant to the Minister.....	H. N. R. Jackman
Deputy Minister.....	Major-General H. A. Young
Executive Assistant to the Deputy Minister.	H. G. J. Walls
Assistant Deputy Minister..	George T. Jackson
Chief of Administrative Services and Secretary	Robert Fortier
Director, Economic Studies Branch.....	Dr. E. P. Weeks
Financial Adviser.....	L. V. McGurran
Chief, Purchasing and Stores Branch.....	H. G. Hunt
Chief, Information Services.....	E. J. Marten
Chief, Personnel Branch.....	J. F. Maxwell
Chief, Legal Services.....	Alban Garon
Dominion Fire Commissioner.....	R. A. W. Switzer

Regional Directors

Montreal, P.Q.....	R. J. Grenier
Edmonton, Alta.....	O. H. Leicester

Harbours and Rivers Engineering Branch

Chief Engineer.....	G. Millar
Executive Assistant Engineer.....	P. W. Walters
Chief, Marine Excavation Division.....	C. K. Hurst
Chief, Maintenance and Operations	
Division.....	J. E. Bright
Chief, Planning and Construction	
Division.....	G. T. Clarke

District Engineers

St. John's.....	G. E. Knight
Charlottetown.....	C. W. Currie
Halifax.....	J. A. Brown
Saint John.....	J. F. Godsell
Rimouski.....	G. Lajoie
Quebec.....	L. McLaren
Montreal.....	A. H. Gagnon
Ottawa.....	A. Michaud
Toronto.....	R. P. Henderson
London.....	G. N. Scroggie
Fort William.....	E. B. Ashton (Acting)
Winnipeg.....	C. L. Davies
Edmonton.....	C. A. Walrath (Acting)
Vancouver.....	A. W. Walkey

Development Engineering Branch

Chief Engineer.....	G. B. Williams
Administrative Officer to Chief Engineer.	W. D. Egan
Chief, Highways Division.....	R. A. Campbell
Chief, Structures Division.....	V. S. Thompson
Chief, Testing Laboratories.....	N. E. Laycraft

Supervising Engineers

Newfoundland.....	A. L. Perley
Nova Scotia.....	H. F. Peters
New Brunswick and Prince Edward Island.....	H. A. Nason (Acting)
Ontario.....	W. Koropatnick
Manitoba and Saskatchewan.....	J. A. Flatt
Alberta and Northwest Territories.....	J. E. Savage
Banff, Alberta (Western National Parks)	A. H. MacKinnon
British Columbia.....	R. F. Petursson
Whitehorse, Yukon Territories.....	J. E. Kellett

Building Construction Branch

Chief Architect.....	E. A. Gardner
Assistant Chief Architect.....	A. K. Mills
Assistant Director i/c Administration...	E. C. Martel
Chief, Requirements Division.....	E. G. Langley
Chief, Plans and Specifications Division..	I. B. Simpson
Chief, Northern Construction Division..	G. B. Pritchard

District Architects

St. John's.....	L. W. Hopkins
Halifax.....	P. W. Vaughan
Saint John.....	P. S. Hunter
Quebec.....	J. A. Drolet
Montreal.....	P. R. Martineau
Ottawa.....	A. D. Wilson
Toronto.....	J. E. Kelly
Winnipeg.....	H. C. Tod
Edmonton.....	A. E. Cook
Vancouver.....	R. J. Bickford

Property and Building Management

Director.....	D. A. Freeze
Assistant Director.....	R. G. McFarlane
Chief, Lands Administration Division...	W. F. Cherry
Chief, Accommodation Division.....	A. S. Archard
Chief, Operations Division.....	E. W. Labelle

District Managers

St. John's.....	J. W. Pye
Halifax.....	W. H. C. Carroll (Acting)
Saint John.....	R. S. Lawrence
Quebec.....	E. Raymond
Montreal.....	G. K. Aubut
Ottawa.....	G. O. Bigaouette
Toronto.....	W. H. Kayes
London.....	(Vacant)
Winnipeg.....	F. H. Weyerman
Saskatoon.....	R. S. Fonberg
Edmonton.....	G. T. Gibson
Vancouver.....	G. E. McPhee

REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1960

Introduction

During the 1959-60 fiscal year, the Department of Public Works carried out a works program larger than any undertaken in any previous year. The total dollar value of work carried out with funds from Departmental Estimates, \$209,248,591, was less than the amount for 1958-59, which was \$215,940,305. However, this decrease was more than offset by a further expansion in the services and work performed for other Government departments and agencies. Expenditures under encumbrances from other departments, which are not reported in Public Works accounts, were \$49,793,696.75 during the year as compared to \$33,881,580.35 for the 1958-59 fiscal year.

Total expenditure in 1959-60, including the amount under encumbrances from other departments but not reported in Public Works accounts, shows an increase of \$9,220,402.40 from that for 1958-59. The increase in total expenditure for harbour and river works amounts to \$11,275,254.79; for dredging, plant, etc., \$683,308.00; for Departmental Administration \$755,770.00; and for Trans-Canada Highway \$4,318,629.00. The decrease in expenditure for Public Buildings was \$7,812,559.39.

General Comments

Harbours and Rivers engineering work during the year was highlighted by large projects underway on the east and west coasts and at the Lakehead in Ontario. Good progress was made on the \$13 million harbour development at St. John's, Nfld. Development of the Great Lakes area for seaway traffic was continued with large projects for the deepening of harbours and construction of new harbour facilities for deep-sea shipping, underway at the more important shipping centres such as Toronto, Hamilton and the Lakehead. Development of marine facilities on the west coast are similar in importance because they too will equip large active harbours to provide better service for ocean-going traffic from all countries.

In the Department's Building Construction activities, the emphasis during the year was on work in the Canadian North and on a number of large projects in the more important cities. Northern work included two hostels, a staff residence and a principal's residence at Whitehorse in the Yukon; a school, hostels and apartments at Fort Simpson in the Northwest Territories and a hospital at Inuvik. Among the major building projects in the larger centres on which work was continued were the Sir Humphrey Gilbert Building, St. John's, Nfld.; the Sir Charles Tupper Building, Ottawa; Postal Station "Q" in Toronto; a new wing for the Shaughnessy Hospital in Vancouver; a headquarters building for the Post Office Department, and a Communications Building in Ottawa.

In the building management field, the Department assumed responsibility during the year for housing for Federal Government employees at Kitimat, B.C.; Whitehorse, Y.T.; Fort Simpson, Inuvik and Yellowknife, N.W.T., and Churchill, Man. Also, responsibilities in the management of Canadian property overseas were increased with the purchase of the former United States Embassy building in London, England, which will permit the consolidation of Canadian Government departments there.

In the Highways field, Departmental activities on behalf of the Roads to Resources Program were increased and good progress was made on the Trans-Canada Highway, especially in those sections where difficult construction is involved.

Efforts to carry on as much work as possible in the winter months were continued wherever practicable. In most of the contracts issued by the Department during the year, a standard clause was inserted specifying that work must continue in the winter unless permission is obtained to halt operations. With smaller buildings, continued success was achieved in starting construction in the fall and having it completed by March 31. A total of 54 standard post office buildings were erected in the smaller communities of Canada during the 1959-60 winter under this part of the program. It is estimated that 2,292,068 man-hours of work were provided between November 1 and April 30 in the Department's building construction work, and 1,770,086 man-hours in harbours and rivers engineering work.

Expenditures and Revenue

The details of expenditures for the year may be classified as follows:

Harbour and river works.....	\$35,047,997.00	
Dredging, plant, etc.....	7,495,611.00	
Public Buildings.....	91,229,110.00	
Trans-Canada Highway.....	65,353,408.00	
Minister's Salary and Motor Car Allowance.....	17,000.00	
Departmental Administration.....	9,974,177.00	
Other.....	131,288.00	
		<hr/> \$209,248,591.00
Expenditures made under encumbrances from other departments but not reported in Public Works accounts:		
Engineering Works.....	\$22,684,413.22	
Public Buildings.....	27,109,283.53	
		<hr/> \$ 49,793,696.75
		<hr/> \$259,042,287.75

The revenue for the year amounted to \$2,281,737.33 and is made up as follows:

Graving docks.....	\$ 356,043.55	
Rents.....	1,291,345.05	
Casual Revenue.....	633,610.73	
Ferries.....	738.00	
		<hr/> \$ 2,281,737.33

As compared with 1958-59, there is a net decrease in revenue of \$2,637,099.06 of which \$151,595.33 was accounted for by a decrease in rents. The decrease in casual revenue of \$2,555,359.07 was caused by casual revenue being higher during 1958-59 due to the revenue from a large property sale. During 1959-60, the increase in revenue from graving docks was \$69,414.34, and from ferries, \$441.00.

Administrative Services and Departmental Secretary

During the fiscal year 1959-60, 577 various works were advertised by Headquarters in daily and weekly newspapers and industrial publications across the country. In addition to these tender calls the Regional and District Offices advertised many works with estimated costs of less than \$15,000. each. The advertising policy and procedure were reviewed and as a result of this analysis certain changes were made in coverage, copy and number of insertions which brought about substantial savings without reducing competition in bidding. Tenders and security deposits received at Headquarters were processed by the Secretary's Office.

During the year the Department's Duplicating Unit was transferred to the Queen's Printer. This is expected to promote efficiency by obtaining the advantages of large scale production and technological skills in the production of duplicated material for the Department. The Photographic Unit continued to produce photographic material, photostats, map mountings, and reproductions of engineering and architectural drawings for 26 other Departments and Agencies in the Ottawa area.

The Central Registry received and processed 210,228 pieces of correspondence and opened 22,617 new files. Late in the year a network of teleprinters was installed to connect Headquarters with nine Regional and District Offices from St. John's to Vancouver. It is expected that by this means of instantaneous communication the Department's business will be speeded up and that certain costs can be reduced.

The Forms Control Section redesigned 162 forms and classified, indexed and issued 142 directives. Work continued on the review and classification of all Departmental forms.

Economic Studies Branch

During the year under review, the Economic Studies Branch continued to be concerned principally with the assessment of proposed public projects from the economic point of view, particularly where capital outlays were involved. Over 800 such projects were referred to the Branch, and these were assessed and specific recommendations made on each case.

The Branch also continued to make assessments of prospects for population and economic growth in various communities across the country (including several metropolitan areas), where provision of new or additional space to accommodate Federal Departments was being considered. This work was complementary to the Branch's representation on the Treasury Board Advisory Committee on Accommodation Standards.

As in previous years, members of the Branch made several on-site surveys of various harbours. The Interdepartmental Group, consisting of senior officials of the Departments of Public Works, and Transport, continued to investigate major harbour requirements.

Financial Services Division

The Financial Services Division, under the direction of the Financial Adviser, acts in a liaison capacity on behalf of the Department in financial matters with the Treasury Board, the Comptroller of the Treasury and other departments and agencies.

The Division is responsible for the preparation, co-ordination and analysis of the Departmental estimates and for the development and implementation of policies, methods and procedures relating to accounting and budgetary control throughout the Department.

During 1959-60, the Division was also assigned the general responsibility for policies and procedures relating to Departmental contract administration, including representation on the Treasury Board Advisory Committee on contracts.

Fire Prevention Branch

The Fire Prevention Branch, under the Dominion Fire Commissioner, is responsible for fire prevention generally in Federal Government property except that under the control of the Minister of National Defence.

One hundred and five plans and specifications of new buildings were reviewed with respect to the fire protection requirements including the fire resistance of the structure, the installation of fire protection equipment and the provision of adequate means of egress.

Ninety-four specifications for fire protection systems such as automatic sprinklers, fire alarm systems and standpipe and hose systems were prepared or approved.

Thirty-six fire protection engineering surveys were made on such properties as Department of Veterans Affairs' hospitals and health centres, Indian hospitals and National Parks. Through liaison with the provincial and municipal fire authorities approximately 300 inspection reports were reviewed and recommendations forwarded to the Property and Building Management Branch. One hundred and eleven fire inspections were carried out in the Ottawa area in cooperation with the fire departments.

During the year a total of 55 fires were investigated to determine the cause and to recommend measures to prevent recurrences.

Fire protection engineering standards for the use of architects and engineers responsible for the design of Federal Buildings are being prepared. These include standards for extinguishers, alarm systems and flammable liquid storage and handling.

Eleven Technical Information Bulletins were published and a total of over 5,000 were distributed to Federal Departments and Agencies. In addition, a booklet, "Fire Safety in the Home" was prepared in co-operation with Information Services Division. A first printing of 100,000 copies has been distributed to Federal Departments and Agencies, and provincial fire authorities.

Other fire protection material distributed includes 106 film clips for TV showing and over 50,000 posters for display in Federal property across Canada.

Thirty-two films were added to the Film Library bringing the total to 136 titles. There were 973 bookings with a total audience estimated at over 100,000, excluding television and theatre coverage.

A programme of staff instruction and training in the use, operation, and maintenance of fire extinguishers was initiated and a total of 48 lectures and demonstrations were carried out involving an estimated 1,200 Federal Government employees. Assisted by the Ottawa Civil Service Civil Defence Organization, fire drill procedures were organized and 19 fire drills were carried out involving almost 10,000 employees.

Branch Technical personnel served on committees of the National Research Council, Canadian Standards Association, Emergency Measures Organization, Underwriters' Laboratories of Canada, National Fire Protection Association and the Canadian Fire Investigation School. In addition, assistance was given to the Joint Association of Canadian Fire Marshals-Canadian Association of Fire Chiefs Publicity Committee including a \$5,000 Departmental grant.

Over 3,600 copies of the 38th Annual Report of Fire Losses in Canada were distributed to Federal, Provincial and Municipal Agencies, foreign government authorities, universities, etc. A more detailed report was prepared for Federal Government losses. This office also compiled the yearly report of fire losses in Federal Government property for Treasury Board under the terms of the Fire Losses Replacement Regulations. During the year, 1,901 fires were reported with a total loss of \$3,718,508.

The Dominion Fire Commissioner is also Chairman of the Federal Fire Prevention Committee, an interdepartmental advisory organization. During the year, the Committee sponsored the Fire Prevention Contest for Federal Agencies and Technical sub-Committees were established to assist in the development of fire protection engineering standards.

Information Services Division

During 1959-60 the Division issued 525 press releases announcing contract awards for various projects and numerous statements and summaries in response to requests for information from daily and weekly newspapers, magazines, radio

and television. The Division maintains co-ordination and control of official ceremonies for the opening of public buildings, etc., across the country. The Division also published the Department's staff magazine and operated a press clipping service covering 31 newspapers and 35 magazines.

The Parliamentary Returns Section prepared information for answers to questions and returns requested in the House of Commons and the Senate during Parliamentary Sessions. This Section was also responsible for production of the Departmental Annual Report and the Trans-Canada Highway Annual Report.

The Departmental Library is responsible for the circulation of books and periodicals, mainly technical in nature, to the District Offices as well as to the Headquarters area. As of March 31, 1960, the Library contained 16,000 catalogue volumes and various technical periodicals.

Legal Services Division

This Division is responsible for advice of a legal nature as required by the Department, as well as the preparation of legal documents and examination and approval of various documents submitted to the Department.

Under the amended Navigable Waters Protection Act, Railway Act and National Energy Board Act a total of 381 approvals, declarations and orders were granted by the Minister. This figure does not include applications which were not approved. There has been a considerable increase in correspondence requesting information relating to the Navigable Waters Protection Act.

Submissions directed to Treasury Board and Recommendations to Privy Council totalled 1,289.

Eight hundred and eighteen contracts were prepared, including 452 contracts for engineering works, 233 contracts for new construction and 133 contracts for maintenance and services.

Three hundred and forty-four properties were acquired and title documents deposited with the Department.

Leasehold interests were acquired by the Crown by means of new leases or renewal of existing leases for 621 properties and 114 individual leases were prepared for the leasing of Crown-owned property to private persons or Corporations.

The number of contracts entered into by the Department and the number of titles acquired are substantially the same as last year. The number of properties acquired by lease by the Crown and leased by the Crown to private individuals and Corporations has increased to some extent.

Personnel Branch

The Personnel Branch acted again for the Department on the Establishment Review Committee. An increase of 91 positions was provided for the fiscal year. The authorized Establishment for the year 1959-60 was:

Professional and Technical.....	830
Administrative and Clerical.....	1,033
Ships' Officers and Crews.....	537
Prevailing Rate.....	2,093
Building Maintenance and others.....	4,764
TOTAL.....	<u>9,257</u>

Notwithstanding the best efforts of the Civil Service Commission, and the Department, difficulty in maintaining an adequate professional staff of engineers and architects continued; also, from time to time, there were shortages of supporting staff in these areas.

During the year, the Civil Service Commission conducted 339 competitions for Departmental positions open to the public or to employees of other departments. In addition, there were 59 promotional competitions within the Department.

The Training Division conducted a program of training within the Department in letter and report writing, job instruction, supervisory practices and orientation training for new employees. In addition, employees of the Department participated in courses conducted by the Civil Service Commission and by Universities.

One hundred and seventy-eight suggestions were received in the Suggestion Award Program. Forty-one suggestions were accepted and resulted in awards, including 20 cash awards. It is estimated that savings amounting to \$16,855.54 resulted from employees suggestions.

The Suggestion Award Program was decentralized through the establishment of sub-committees in the Superintendent Government Buildings Division, Ottawa, and in the Montreal and Edmonton Regional Offices.

Purchasing and Stores Branch

In addition to purchasing building maintenance supplies and construction materials on an ever increasing scale, this Branch is responsible for the acquisition of furniture and furnishings for Government departments, and their issue in accordance with established standards.

The Branch does a large percentage of its purchasing for the Operating Branches of the Department. With these Branches making strenuous efforts to carry out winter construction, maintenance and repairs, the purchase program for them followed along as a normal consequence.

However, in the field of furniture purchasing, more direct control is exercised by the Purchasing and Stores Branch. By analysis, it was found that the purchasing of furniture in the second quarter, or summer months, could be eliminated to a large degree. Tenders for what normally would be purchased at that time could be called in August or September for January delivery and in December and January for delivery commencing in April. In this way, our purchasing was so planned to provide employment during the winter months.

During 1959-60, we continued our efforts to reduce the cost of our purchases. Particular emphasis was placed on purchase analysis in an endeavour to add to our already extensive list of items purchased in bulk. The measure of our success is reflected in the fact that only 6,983 purchase orders were issued as compared to 7,982 in 1958-59. The total number of invoices has, however, increased by some 4,000 to 23,415. Over 4,500 tender calls were made and some 37,000 potential suppliers were invited to submit quotations.

Government departments now have on issue an inventory of furniture with a replacement value of \$39,702,117.

Some 16,348 requisitions were processed in 1959-60, a reduction of over 2,000 from 1958-59. This reduction is mainly attributable to the co-operation of Departmental Furniture Control Officers.

A review of the year's statistics on furniture issues indicates that our continued and intensified furniture repair and re-issue program plus investigations on the part of our Investigators has resulted in an overall saving of \$460,218. This saving represents the actual reduction in issues as compared to requisitions received. It is of interest to note that 8,274 individual furniture investigations were conducted by the Investigators of this Branch.

The Departmental Board of Survey convened nine times in 1959-60 to consider Applications for Write-Off. The number of applications reviewed at Headquarters was, however, reduced by some twenty per cent as a result of the decentralization of minor Write-Off powers to district representatives.

PROPERTY AND BUILDING MANAGEMENT BRANCH

Properties and buildings administered and maintained by this Branch for the accommodation of various Government departments in Canada and abroad during the year numbered 3,427, consisting of 1,266 Crown-owned buildings and 2,161 leased premises.

Two hundred and forty-two properties were acquired for building sites at a cost of \$5,414,215.00 and an additional 524 properties are in various stages of acquisition at the close of the year at an estimated cost of \$9,685,455. One of the major projects under way is the acquisition of more than 100 properties required for the harbour improvement development at St. John's, Newfoundland, the total cost of which will approximate \$3,500,000.

During the year, purchase of the leasehold interest in a property at number 1 to 3 Grosvenor Square, London, England, was negotiated at a cost of £1,690,000. Possession of the premises in September 1960 will allow consolidation of all those Canadian Government departments in London now occupying rented quarters outside of Canada House.

In the continuing Winter Works Programme, 52 sites were acquired at a cost of \$100,475. with an additional 29 sites under negotiation at a cost of \$66,425. Repairs and upkeep contract work reserved for the months between November and April to assist in winter employment amounted to \$2,394,000.

The Branch has assumed responsibility for 700 units in housing pools of both married and single quarters for Federal Government employees in Kitimat, B.C., Whitehorse, Y.T., Fort Smith, Inuvik and Yellowknife, N.W.T., and Churchill, Man. The Branch also administers approximately 500 dwelling units elsewhere in Canada, which are occupied by Departmental employees mainly in the custodial categories. Some space in Public Buildings which has been provided against future requirements is let at commercial rates pending Crown need.

The number of active leases in effect as of March 31, 1960, was 1,848 of which 1,739 represent premises occupied by Crown offices and 109 represent miscellaneous rental agreements, such as easements, sidewalk areas, sewers, etc.

The annual rental cost of these leased premises and land amounted to \$8,166,453.15. The breakdown of this total is as follows:

Location	No. of Leases	Total Cost
Newfoundland.....	66	\$ 143,481.88
Nova Scotia.....	99	261,000.84
Prince Edward Island.....	11	3,587.96
New Brunswick.....	89	171,057.20
Quebec.....	379	1,268,814.67
Ontario.....	452	1,993,397.04
Manitoba.....	121	320,185.22
Saskatchewan.....	233	246,143.55
Alberta.....	236	451,167.62
British Columbia.....	189	512,047.68
Northwest Territories.....	4	7,596.68
Yukon Territory.....	3	3,800.00
New York, U.S.A.....	1	21,445.34
London, England.....	12	140,391.77
Ottawa, Ontario.....	266	2,622,335.70
	<u>2,161</u>	<u>\$8,166,453.15</u>

The total cost of occupying all Crown-owned and leased premises including rentals during the year amounted to \$41,537,754.14. The following is a breakdown of these costs by location:

Newfoundland.....	\$ 682,221.02
Nova Scotia.....	1,127,486.83
Prince Edward Island.....	196,988.40
New Brunswick.....	984,871.24
Quebec.....	6,940,397.83
Ontario.....	7,159,004.59
Manitoba.....	1,649,534.42
Saskatchewan.....	1,311,818.21
Alberta.....	1,691,883.44
British Columbia.....	3,187,116.49
Northwest Territories.....	99,833.08
Yukon Territories.....	230,215.02
New York, U.S.A.....	22,959.65
London, England.....	239,607.58
Ottawa, Ontario.....	16,013,816.34
	<u>\$41,537,754.14</u>

HARBOURS AND RIVERS ENGINEERING BRANCH

During 1959-60 this Branch carried out construction and repairs to 464 wharves, breakwaters and other harbour facilities and protection works, of which 352 were completed during the year and 112 were still in progress as of March 31, 1960. In addition to this, 1,610 smaller projects were undertaken.

Dredging was carried out in 400 locations, involving the removal of 12,351,610 cubic yards of material.

The Branch is responsible for the planning, design and construction of marine engineering works, the planning and execution of dredging operations to facilitate water transportation, the engineering aspects of the administration of the Navigable Waters Protection Act, and the provision of engineering services to other branches of the Department and to other Federal Departments.

Locks, dams and dry docks are maintained and a fleet of dredges, scows, tugs, inspection and survey boats is operated to carry out the departmental programme.

Newfoundland

During the year a major start was made on the thirteen million dollar development of the St. John's, Newfoundland, harbour, plans for which have been prepared by a firm of outside consultants. This work represents one of the largest single projects undertaken by the Branch, and, when completed, will provide the port with modern berthing and cargo handling facilities. The project includes marginal wharves on the north and south sides of the harbour, a large finger pier at the west end of the harbour, access roadways, tug boat service, development of parking areas, and a harbour pollution study. During the year the basin west of the proposed Department of Transport wharf was completed and work on the marine agency wharf itself was almost completed. Demolition work also was done in preparation for other stages of construction.

Marine transportation plays an important role in Newfoundland's economy and the Branch is undertaking the construction of new railway-marine terminal facilities at Corner Brook and Lewisporte on behalf of the Department of Transport and the Canadian National Railways. The trend toward the use of consultants on certain major projects is exemplified by the retention of consultants for plans and specifications and supervision of construction of these works.

During the year the Branch designed and commenced construction of 16 Community Fishing Stages for the Department of Fisheries. These marine facilities are to help the fishing industry in Newfoundland, and a considerable proportion of the work was done in winter to provide employment. The entire Stage programme comprises provision of 20 such units.

Nova Scotia

The Department of Mines and Technical Surveys is undertaking the construction of an Oceanographic and Hydrographic Research Station at Bedford Basin at a total cost of over \$2,500,000. This Branch, Development Engineering Branch, and Building Construction Branch are the construction agencies for the Station. During the year, this Branch undertook, by contract, underwater test drilling at the site of the Station prior to the award of contracts for dredging and for construction of the jetty.

At Central Port Mouton, a new harbour is being developed to accommodate larger boats such as long liners. The project includes a rubble mound breakwater, a finger wharf, a turning basin and a 2000-foot-long entrance channel.

It is considered more feasible to develop one new harbour at Central Port Mouton rather than undertake costly reconstruction and further development of the harbours at Port Mouton and Willow Cove, where the facilities will be discontinued. The project will cost about \$400,000.

The public wharf at Sydney, which is a deep water terminal capable of accommodating ships with up to 28 feet draught, is under extensive reconstruction at a cost of over \$500,000. The structure will be enclosed with steel sheet piling for about 665 feet, extensions have been added along the south and west faces, a spur railway track is being relocated, and a new transit shed will be built.

Prince Edward Island

At Wood Islands, which is the terminal of the ferries plying between Prince Edward Island and Nova Scotia (Caribou), harbour improvements are being carried out. The existing steel sheet pile wall on the East side of the terminal has been replaced with a new wall which allows dredging to 15 feet below L.W.S.T. along the full length of the wall. This depth is necessary for the operation of the ferry "Lord Selkirk" and will be provided in other parts of the harbour when improvements are completed this year and next. A contract for dredging to 15 feet of the west side of the harbour basin between the new ferry terminal and the northerly end of the west breakwater has been awarded, and arrangements for construction of a steel sheet pile breakwater 652 feet long replacing the existing west breakwater are being planned to give a wider harbour entrance and enlarged ferry basin.

New Brunswick

A winter port to facilitate industry and shipping in Northern New Brunswick, is being developed with the construction of a wharf at Dalhousie at a cost of about \$750,000. Designed to serve the needs of the pulp and paper industry and of mineral and oil shipments, this deepwater wharf is being built under contract. It is an example of the construction of public works closely related to the needs of industry.

The channel and basin of the harbour of Saint John (Courtenay Bay) have undergone major dredging work at a cost of over \$1,500,000. over two years.

Quebec (Rimouski District)

The North Shore of the St. Lawrence River is undergoing tremendous industrial development, and it is essential to establish year-round marine communications between the North and South shores of the River. At Pointe-au-Père harbour installations are being improved with a major wharf enlargement, the construction of a breakwater, ancillary works including a warehouse and dredging, and a railway spur line from the wharf to the C.N.R. main line at St. Anaclet. These improvements will bring the North Shore industries closer to the large consumer markets and industrial centres of Canada and the United States, especially during the winter months. The total cost of the project will be over \$3,000,000.

(Quebec District)

A third Federal wharf is being constructed at Seven Islands on the North Shore of the St. Lawrence to accommodate traffic for Clarke City, Moisie, Port Cartier, Schefferville and other points on the North Shore. The traffic converges at the port of Seven Islands and the wharf is to help eliminate congestion. The structure will cost over \$1,000,000.

At Pointe-au-Pic, also on the North Shore, the harbour is being developed to accommodate the rail traffic for the merchandise and freight required further down the North Shore. An extension on the west side of the existing wharf of steel sheet piling, including railway sidings, crane, and storage shed, is being completed at a cost of almost \$750,000.

At Baie Comeau, also on the North Shore, two areas have been dredged in connection with the construction of grain-handling and storage facilities. Surveys and soundings also have been taken in preparation for enlarged wharf facilities and deeper berths for the commercial vessels.

Ontario (Toronto District)

The opening of the St. Lawrence Seaway has required expanded marine facilities at various ports, including provision for handling deep-sea shipping. Developments at Toronto and Hamilton are significant. In Toronto Harbour, new dredging to permit the mooring, turning and manoeuvring of ships in the harbour continues with the completion of dredging from Yonge Street to Parliament Street (Area "E") (including dredging in the entrances to slips at Yonge Street, Jarvis Street, and Parliament Street) and with the completion of dredging of a large area south of this, at the eastern end of the harbour and adjacent to the Ship Channel and turning basin and of other areas.

The Toronto Island Airport west of Toronto Harbour requires increased landing facilities and the work was undertaken by the Department for the Department of Transport. As a result of dredging being done in Toronto Harbour, material was available to be used as fill for certain stages of the construction. During the year, stage 1 of the construction was completed, stage 2 was more than four-fifths completed, and the contract for stage 3 was awarded. Total cost of the contract work awarded was over \$1,500,000. In line with the recent trend in awarding design and supervision of construction on many of the larger projects to private firms, a firm of consultants has been retained for the plans and specifications and for supervision of the three stages of construction to date.

At Hamilton, construction has been completed on the new Terminal Wharf No. 3, Ship Street, and is still in progress on the Strathearn Avenue wharf. Both wharves have been designed for deep-sea shipping. Dredging to Seaway depth continues in Hamilton Harbour including dredging of the channel from the new Hamilton Harbour Commission dock at Ship Street to deep water in the harbour.

(Fort William District)

The Lakehead Harbour Development at Fort William and Port Arthur, planned to cost an estimated \$7,500,000., is proceeding with the completion of temporary access roads and bridges to meet construction requirements and general traffic needs during the early stages of the development. Dredging also is being undertaken of an area adjacent to the proposed wharf, and this includes the filling of suitable material behind the quay wall. The Lakehead, Toronto, and Hamilton projects are major items in the overall development of the Great Lakes to meet the requirements of the ocean traffic, now using the St. Lawrence Seaway.

Alberta (Edmonton District)

Under the direction of the Edmonton District office, construction was undertaken at Cambridge Bay in the Northwest Territories where wharfage facilities are being provided for the extensive settlement being developed at

Cambridge Bay by the Department of Northern Affairs and National Resources. The wharf will be important to the settlement since it is entirely dependent on water transport. The total program for Cambridge Bay envisaged by the Department of Northern Affairs and National Resources will amount to several millions of dollars and cover such items as Eskimo housing, nursing stations, R.C.M.P. Headquarters, Church Missions, etc.

British Columbia (Vancouver District)

In British Columbia, a contract has been awarded for reconstruction of the assembly wharf at the deep-sea harbour of Port Alberni, at a total cost of over \$800,000. Deep-sea vessels call at this wharf, and lumber, plywood, pulp and other cargo is handled. Reconstruction of the untreated timber substructure and superstructure with creosoted piling and timber is part of the programme of maintenance and improvement.

At the major customs clearance centre of Sidney, British Columbia, a new ferry terminal has been completed at a cost of over \$250,000. The terminal is to service the increased needs of traffic from the United States entering Canada at Sidney. The terminal consists of a parking compound, customs building, approach, turnaround, passenger waiting-room, steel ramp and apron with gantry works and fendering dolphins.

The Fraser River Ship Channel must be maintained for deep-sea vessels using the Port of New Westminster. Improvements and maintenance on existing works and the planning, location and construction of new works are based on tests performed with a scale model of this section of the Fraser River. At the trifurcation area at New Westminster, various works are being planned and are under consideration to reduce the large amount of annual dredging required at this point. At other localities on the River, maintenance work was done on training and protection works including cut-off dams. (Details of these works will be found in the report of the Harbours and Rivers Engineering Branch, Page 27).

DEVELOPMENT ENGINEERING BRANCH

The responsibilities of the Development Engineering Branch are in the highway, bridge and structural field, in addition to the testing of many materials and supplies used by Federal Government departments and agencies. The Branch is also responsible for special engineering projects not related to harbours and rivers work. The Branch is divided along functional lines into three Divisions: Highways, Structures and Testing Laboratories.

The Highways Division is responsible for the general administration of the Trans-Canada Highway Act and the Trans-Canada Highway Agreements with the participating Provinces. The Division is also responsible for the construction of the Trans-Canada Highway through National Parks wherever this is a part of the system. It carries out the construction of major highways other than the Trans-Canada within all National Parks and in the Northwest Territories and Yukon. It also undertakes the operating responsibility of the joint Federal-Provincial Roads-to-Resources Program.

The Structures Division is concerned with the approval of the design for bridges under the terms of the Trans-Canada Highway Agreements and for design and construction of those forming part of the Trans-Canada Highway through the National Parks. It is responsible for bridges on other National Parks roads and in the Northwest Territories and Yukon, built for the Department of Northern Affairs and National Resources. It has responsibilities in the design and construction of international and interprovincial bridges in which the Federal Government participates. The Structures Division also advises and assists in the design of bridges and other structures related to the development of the National Capital Plan.

The Testing Laboratories is responsible for the testing to standard specifications of a great variety of materials, supplies and equipment used by various Federal departments and agencies. It also provides field testing facilities and consultant services in its particular field.

In addition the Testing Laboratories give assistance in the preparation of specifications and standard test methods for the Canadian Government Specifications Board, Canadian Standards Association and the American Society for Testing Materials, as well as Departmental specifications.

The principal activities during the year in the three divisions of the Branch are summarized below. The tables mentioned on Page 42 give the details of the various operations.

Highways Division

This division has two main functions firstly, the implementation of the Trans-Canada Highway Agreement, and secondly, highways construction in the National Parks and Northwest Territories.

The Trans-Canada Highway Act, and amendments thereto, provides for Canada's participation in the cost of constructing a Trans-Canada Highway. Under the Act of December, 1949, and the Agreements made thereunder Canada contributed up to fifty percent of the cost of constructing the Trans-Canada Highway, including construction costs prior to the passage of the Act, with Federal contributions limited to \$150,000,000, during a construction period of seven years following December 10, 1949.

When it became apparent that the completion of the highway was not feasible within the seven year construction period, this period was extended to December 31, 1960 when an Act to amend The Trans-Canada Highway Act, received Royal Assent on June 8, 1956. Other provisions of the amended Act included an increase in contributions from 50 percent to 90 percent on one-tenth of the highway mileage in each Province. Under this Amended Act the maximum amount that Canada might contribute was increased to \$250,000,000. This amount was increased to \$350,000,000 by a second amending Act, which received Royal Assent on March 20, 1956.

It is now evident that the construction of the highway can not be completed in all of the participating Provinces by December 31, 1960. Legislation introduced at the present session of Parliament would provide for the extension of the construction period to December 31, 1963, and for an increase of \$50,000,000 in the amount of the aggregate limit of the funds available for expenditure by Canada.

Full details covering the progress of construction, commitments accrued and payments made to each Province under the Agreements may be found in The Report of Proceedings under The Trans-Canada Highway Act for the fiscal year ended March 31, 1960.

The Highways Division also acts as technical adviser to the Department of Northern Affairs and National Resources in connection with the Federal Roads to Resources Program. Under this program agreements have been entered into with each of the participating provinces covering Canada's contribution to the cost of constructing Resources Development Roads. The extent of the Federal contribution is 50% of the cost of constructing approved roads up to a maximum of \$7,500,000 for each province. The work is processed and supervised by engineers of the Division in accordance with the procedures now prevailing for work under the Trans-Canada Highway Act.

In addition, this Division has direct responsibility for the construction of the Trans-Canada Highway through the National Parks. During the year construction of the Trans-Canada Highway through the National Parks continued satisfactorily except in Glacier National Park where construction was slowed by exceptionally wet weather during the summer season.

In Terra Nova National Park, Newfoundland, grading and the construction of the four structures required at Salton's Brook, Southwest Brook, Bread Cove and Big Brook have been completed. Granular base course material has been placed on fifteen miles and stockpiled for the remaining ten miles. The road has been open to traffic for some time and the only immediate work remaining is to place the bituminous stabilized base course, install guide rail and sign posts where required, mark the centre line and complete clean-up.

In Banff and Yoho National Parks the bituminous base course has been completed throughout both Parks for approximately a year. In general the road base has stood up remarkably well with minor subsidence in only three or four areas. Sign posting and centre line marking have been completed. Work remaining consists of placing the final pavement and final clean-up. It is to be noted that the bituminous base provides a good running surface and that the final pavement should only be placed when any danger of settlement is past.

The start of construction in Glacier and Revelstoke National Parks was delayed since the decision to follow the Rogers Pass route between Golden and Revelstoke was not finally agreed upon until 1956. In addition the contractor faced great difficulties because of the wet season so that progress was not up to reasonable expectations. In spite of this, grading is approximately 65% complete in Glacier and 85% complete in Revelstoke Park. Construction of the six bridges required in Glacier Park is well underway and the three bridges (including an overpass) in Revelstoke Park have been completed.

The avalanche investigations which have been underway for several years in Glacier National Park have been well worthwhile. All defences have been planned in detail, the construction of earth defences (mounds, benches and dams) is well underway, and designs are complete for snowsheds utilizing four types of construction material (concrete, steel, timber and corrugated plate arch). In addition for the past two years our Avalanche Organization has operated an avalanche forecasting system as though the road were open for traffic and the forecast made have proven to be remarkably accurate.

Details of the progress on the construction of the Trans-Canada Highway in these National Parks are in tabulated details of operations Page 42.

ROADS IN NATIONAL PARKS AND NORTHWEST TERRITORIES AND YUKON

The Highways Division is also responsible for the construction of major roads for the Department of Northern Affairs and National Resources. Details of progress on the various contracts are given in the accompanying tables and a summary of progress to date on major projects follows:

In the east grading on the Cabot Trail in Cape Breton Highlands National Park is complete for the first 23 miles and underway to Mile 29.5 on the west coast. The first 15 miles have been paved.

In Prince Edward Island National Park, the Gulf Shore Road has been reconstructed and paved to improved standards except for two sections (between Rustico Harbour and the New London Camp Grounds, and between Brackley Point and Rustico Island) where work is in progress and approximately 65% complete.

In the Western National Parks the grading of the Banff-Jasper Highway is complete over the southern 68 miles and is underway to Mile 85, except for the Big Hill section between Mile 68 and 72, where the selection of the most economical and most satisfactory route, aesthetically and geometrically, has now been satisfactorily achieved. Paving (bituminous base course) is complete for the first fifty miles.

On the Banff-Windermere Highway grading is complete for 56 of the 66 miles between the junction with the Trans-Canada Highway in Banff Park to a

point ten miles north of Radium Hot Springs. All of this section has been paved with bituminous stabilized base except the northern eighteen miles. The southern ten miles includes the Sinclair Canyon where reconstruction presents major problems necessitating intensive examination to ensure the preservation of the attractions of the area.

Surveys for the reconstruction of the Jasper-Edmonton, Jasper-Yellowhead, Chief Mountain Highway (Waterton Lakes National Park), Waskesiu Highway (Prince Albert National Park), and No. 10 Highway (Riding Mountain National Park) have been completed.

In the Northwest Territories the extension of the MacKenzie Highway from Enterprise (28 miles south of Hay River) to Yellowknife continued according to plan. On the 274 miles, grading is complete from Enterprise to Fort Providence. The 136-mile section between Fort Providence and Rae has been graded for the southern thirty miles and construction of the balance is well advanced. The bridge over Frank's Channel near Rae is under construction and the second grading contract between Rae and Yellowknife is approaching completion. In addition, plans and tender documents were prepared for a power ferry and landing facilities on the MacKenzie River at Providence.

Surveys for the reconstruction of the MacKenzie Highway between Hay River and the Alberta boundary (82 miles) were continued and plans and quantity estimates prepared for the first twenty-five miles.

Surveys for a development road between Yellowknife and McKay Lake were carried out for a total of 125 miles during the year.

Reconstruction of the portage road between Fort Fitzgerald and Bell Rock (on the water route from Lake Athabasca to Great Slave Lake) was completed.

In the Yukon Territory the location survey was completed from the Dawson Mayo Road at Flatt Creek to the Eagle Plain where oil has now been discovered at about Mile 200 on the route. Forty miles of the alignment has been cleared and thirty miles of grading, and bridges completed. A contract was let for the continuation of construction.

A reconnaissance survey was carried out from Watson Lake to Carmacks via Ross River, a distance of approximately 300 miles, and location survey was completed on 100 miles of this route. Thirty miles of the route was cleared during the winter and tenders prepared for construction of this first section from Watson Lake north.

The 750' concrete and steel bridge over the Yukon at Carmacks was completed. A contract was let and work is approaching completion for the construction of similar bridges over the Pelly and Stewart Bridges on the Whitehorse-Mayo Road.

Structures Division

This Division is responsible for all international and interprovincial bridges for which the Federal Government provides funds. It is also capable of looking after other structural engineering problems although it has been concerned since its inception six years ago principally with bridges. Most of these bridges have been on the Trans-Canada Highway within the National Parks and this program still represents a large part of the work. In addition designs of all bridges forming part of the Trans-Canada Highway are submitted by the provinces for examination and approval in the Structures Division.

A less direct responsibility has been accepted for bridge building by the National Capital Commission within the City of Ottawa, such as the MacKenzie King Bridge, which was completely designed and supervised by personnel of the Structures Division, as well as bridges to which the National Capital Commission contribute such as the Bytown, Hurdman and Chaudiere Bridges.

During the year this Division was also engaged in the studies which continued with respect to a proposed causeway across the Northumberland Strait between New Brunswick and Prince Edward Island.

The Structures Division also undertakes the design of bridges in the Yukon and Northwest Territories on projects carried out by the Department on behalf of the Department of Northern Affairs and National Resources. Some of the more important crossings in this category with which the Division has been and is associated are located at points such as Whitehorse, Mayo River, Crooked Creek, Stewart and Pelly in the Yukon and Cameron River in the Northwest Territories.

In addition to the projects just mentioned Structures Division also looks after the operation and maintenance of certain bridges in various parts of Canada which are owned by the Federal Government. These include structures such as the Kingston-Lasalle Causeway, as well as bridges such as the New Westminster Railway Bridge in British Columbia; the low level bridge across the shipping canal at Burlington, Ontario, and a number of smaller structures in other parts of the country.

During the year work continued on the new Burlington Low Level Bridge in Ontario and the Campbellton-New Brunswick Crosspoint-Quebec Bridge, each of which will cost in excess of \$4,000,000 when completed. In addition negotiations were continuing with respect to the construction of an International Bridge to connect Campobello Island in New Brunswick with the Mainland at Lubec in the State of Maine, U.S.A.

Testing Laboratories Division

The Testing Laboratories provides laboratory and field testing facilities as well as a consultant service to the Department of Public Works and other departments and agencies of the Government in connection with the manufacture, preparation or use of materials in many diversified technical fields.

Materials purchased for use in the construction and maintenance of public structures are tested to standard specifications to ensure their engineering suitability and general quality.

Special investigations are carried out where engineering problems are encountered or where no suitable specifications exist as in the case of new materials or combinations of materials and devices.

Assistance is given in the preparation of specifications and standard test methods for the Canadian Government Specifications Board, Canadian Standards Association, American Society for Testing Materials, as well as departmental specifications.

The staff members of the laboratories act as consultants to officers of this and other departments of Government on matters concerning soil mechanics, physical and chemical properties of materials, corrosion and other problems of a special nature.

The Division is divided along functional lines into three main operating sections, and details of the activities of each are as follows:

Chemical Section

This section offers testing facilities and technical services to all Government Departments and agencies. Engineering materials, building products, maintenance materials, protective coatings, lubricants, paper products, office supplies, plastics, proprietary products and various other materials were examined. The investigation of the problem of the corrosion of steel sheet piling in sea water was continued along with the other corrosion problems.

A total of 2,535 samples were examined during the year which was an increase of 21.7% over the previous fiscal year.

Physical Section

This section offers a testing and consulting service to all Federal Government Departments and agencies in the field of construction materials. The materials tested include concrete, cement, concrete building products, asphaltic concrete, steel, aluminum windows, building hardware and various other materials.

The usefulness of this section has recently been extended with testing facilities suitable for the inspection testing of various built up structural sections, members such as columns, girders, beams, reinforcing steel, etc.

Soils Section

This section consists of a field sampling unit, a laboratory testing unit, and a project engineering unit, all of which constitutes a pre-engineering section devoted to sub-surface investigations on proposed engineering works and building sites. The Soils Section then makes recommendations to the various construction agencies within the Government regarding foundation requirements.

Details of the operation of the Branch and its divisions will be found on Page 42.

BUILDING CONSTRUCTION BRANCH

Contracts for the construction, extensive alterations and improvements to 245 Federal Buildings and other premises occupied by Government departments were awarded during the fiscal year 1959-60. Work was still in progress on 179 projects at the end of the fiscal year.

An expanded programme of fairly large buildings was also in progress across the country, including sizeable projects such as Federal Buildings at Harbour Grace, Newfoundland; Souris East, P.E.I., Glace Bay, N.S., Elliott Lake, Ontario; Trade and Commerce Building at Montreal, P.Q., Cafeteria Building at Riverside Drive, Ottawa, buildings for the Unemployment Insurance Commission at Niagara Falls, Ont., Winnipeg, Man., and Edmonton, Alta.

An expanded programme of construction of fairly large buildings was also in progress across the country including the following main project in each Province:

Harbour Grace, Newfoundland, Federal Building—A two-storey building, partial basement, (20 feet by 29 feet), first floor (47 feet by 55 feet), partial second floor, (28 feet by 55 feet), with combined structural steel and wood framing with brick veneer on the exterior walls. Total floor area of 4,730 square feet.

Souris East, Prince Edward Island, Federal Building—Two-storey building, with basement, (42 feet by 62 feet), with structural steel framing, porcelain enamel panels and aluminum windows. Total floor area of 7,800 square feet.

Dartmouth, Nova Scotia, Shops Building—Two-storey building, without basement, (45 feet by 173 feet) with reinforced concrete framing and masonry exterior walls covered with brick veneer. Total floor area of 17,870 square feet.

Sackville, New Brunswick, R.C.M.P. Detachment Quarters—Two-storey building with basement, (44 feet by 66 feet), with wood framing throughout. Total floor area of 3,700 square feet.

Montreal, Quebec, Trade and Commerce Building—Three-storey building, with basement, (65 feet by 78 feet), with reinforced concrete framing throughout and masonry exterior walls covered with brick veneer. Total floor area of 14,160 square feet.

Ottawa, Ontario, Laboratory and Workshop Building—One-storey building, without basement, (170 feet by 338 feet), with reinforced concrete framing throughout and masonry exterior walls covered with brick veneer. Total floor area of 64,200 square feet.

London, Ontario, Westminster Hospital, (New Wing)—The new wing consists of four sections, namely, (A), 45 feet by 168 feet, with basement, and 6 storeys; (B) 45 feet by 155 feet with basement and 8 storeys; (C), 45 feet by 93 feet, with basement, and 6 storeys; (D) 45 feet by 140 feet, with basement, and one storey; and the whole joining to a central tower approximately 80 feet in diameter with basement and 8 storeys. The framing is reinforced concrete with brick and enamel panels on the exterior walls. The total floor area is 233,000 square feet.

Winnipeg, Manitoba, U.I.C. Building—Four-storey building, with basement, (82 feet by 234 feet), with structural steel framing and masonry exterior walls covered with face brick. Total floor area of 100,250 square feet.

Saskatoon, Saskatchewan, Federal Building—A five-storey building with basement (127 feet by 140 feet) with reinforced concrete framing and brick, granite and porcelain enamel on the exterior walls. Total floor area is 80,000 square feet.

Edmonton, Alberta, U.I.C. Building—Two-storey building, without basement, (94 feet by 213 feet), with reinforced concrete framing with exposed rubbed concrete exterior walls. Total floor area of 40,140 square feet.

Kitimat, British Columbia—Federal Building—A two-storey building, with part basement, (68 feet by 128 feet), with reinforced concrete framing throughout and brick and enamel panels on the exterior walls. Total floor area of 26,612 square feet.

Whitehorse, Yukon Territory, Hostels and Residences—Two one-storey buildings, without basements, (one 146 feet by 212 feet and the other 152 feet by 156 feet); one two-storey staff residence, without basement, (34 feet by 29 feet); and one two-storey principal's residence, (25 feet by 25 feet), the whole with wood framing throughout and asbestos cement shingles on the exterior walls. Total floor area of 40,317 square feet.

Progress is being made on the following large projects, contracts for which were awarded during the previous fiscal years and each project costing \$2,000,000.00 and over:

St. John's, Newfoundland.....	Sir Humphrey Gilbert Building (Customs)
Ottawa, Ontario.....	Sir Charles Tupper Building
Ottawa, Ontario.....	Post Office Buildings
Ottawa, Ontario.....	Communications Building
Toronto, Ontario.....	Postal Station "Q"
Vancouver, British Columbia...	Shaughnessy Hospital (New Wing)
Fort Simpson, N.W.T.....	School, Hostels, Apartments, etc.
Inuvik, N.W.T.....	Hospital

Contracts were awarded for 54 Post Office Buildings throughout the country each costing not over \$25,000.00, most contracts being awarded during the Fall of 1959 in order to stimulate winter employment.

Details of these works will be found in the Building Construction section of the Report, Page 58.

HARBOURS AND RIVERS ENGINEERING BRANCH

Gerald Millar, Chief Engineer

Province	Location	Date Work Began	Description
NEWFOUNDLAND	Battle Harbour.....	Resumed June 1959	Construction of "L"-shaped wharf completed.
	Bauline.....	June 1959	Construction of extension to existing breakwater completed.
	Bay de Verde.....	July 1959	Reconstruction of existing wharf. In progress.
	Bay de Verde.....	Resumed May 1959	Reconstruction of existing rubble mound breakwater. Completed.
	Beaumont.....	July 1959	Construction of Community Stage and Wharf for Department of Fisheries. Completed.
	Belleoram.....	Resumed April 1959	Reconstruction of existing coastal wharf. Completed.
	Bell Island.....	April 1959	Construction of extension to existing wharf and freight shed. Completed.
	Blue Cove.....	Aug. 1959	Construction of "L"-shaped wharf. In progress.
	Bonavista.....	Sept. 1959	Repairs to deepwater wharf completed.
	Bonavista.....	Resumed July 1959	Dredging of Harbour Pond and channel to main harbour. Completed.
	Branch.....	Resumed June 1959	Repairs to causeway completed.
	Brigus South.....	June 1959	Construction of wharf completed.
	Burn Cove.....	Resumed May 1959	Construction of wharf completed.
	Calvert.....	May 1959	Dredging of entrance channel and basin of harbour. Completed.
	Cape Freels North.....	June 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Carmanville.....	June 1959	Reconstruction of existing wharf. In progress.
	Catalina.....	April 1959	Construction of timber breastwork on north side of existing wharf. Completed.
	Clarke's Head.....	June 1959	Construction of coastal wharf on west side of Gander Bay. Completed.
	Coachman's Cove.....	July 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Codroy.....	July 1959	Construction of rubble mound breakwater completed.
	Colinet.....	Resumed April 1959	Construction of wharf on east side of Colinet Harbour completed
	Conche.....	Aug. 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Crow Head.....	May 1959	Construction of Community Stage and Wharf for Department of Fisheries. Completed.
	Daniel's Harbour.....	July 1959	Dredging of two areas completed.
	Davidsville.....	Oct. 1958	Construction of "L"-shaped wharf completed.
	Deep Bay.....	Aug. 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Douglas Cove.....	June 1959	Construction of "L"-shaped extension to existing wharf completed.
	Eddie's Cove West.....	Aug. 1959	Construction of breakwater. In progress.
	Elliston.....	July 1959	Construction of wharf to replace existing wharf. Completed.
	Embrace.....	Oct. 1958	Construction of new landing wharf completed.
	Flat Rock.....	Feb. 1960	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Fleur de Lys.....	July 1959	Construction of Community Stage and Wharf for Department of Fisheries. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Province	Location	Date Work Began	Description
NEWFOUNDLAND— Continued	Fortune.....	Aug. 1959	Construction of shed with an 8-foot concrete apron and retaining wall. Completed.
	Fox Harbour.....	Oct. 1958	Construction of a pile wharf completed.
	Frederickton.....	Aug. 1959	Construction of extension to existing wharf completed.
	Frenchman's Cove.....	Resumed April 1959	Construction of extension to existing breakwater completed.
	Freshwater.....	July 1959	Construction of extension to existing wharf completed.
	Garden Cove.....	Resumed May 1959	Construction of wharf completed.
	Gaskiers.....	June 1959	Construction of extension to existing wharf and a concrete retaining wall at the approach. Completed.
	Goose Bay (Happy Valley).....	Aug. 1959	Construction of wharf with concrete deck connected to a rock fill approach by a pile trestle, and a freight shed. In progress.
	Gooseberry Cove.....	Sept. 1959	Construction of extension to breakwater-wharf. In progress.
	Grand Bank.....	Aug. 1959	Construction of rubble mound breakwater adjacent to coastal wharf. In progress.
	Griquet.....	Resumed June 1959	Dredging of canal between South West Bay and Upper Griquet. Completed.
	Hare Bay.....	Nov. 1958	Construction of extension to wharf completed.
	Harbour Breton.....	May 1959	Construction of wharf completed.
	Harbour Grace.....	June 1958	Construction of wharf and approach completed.
	Harbour Main.....	May 1959	Reconstruction of wharf completed.
	Harbour Round.....	Aug. 1959	Construction of wharf completed.
	Hillgrade.....	Aug. 1959	Construction of wharf completed.
	Holyrood.....	Resumed June 1959	Construction of two protection walls on east and west sides of channel. Completed.
	Hopeall.....	Nov. 1958	Construction of wharf completed.
	Island Harbour.....	Aug. 1959	Construction of Community Stage and Wharf for Department of Fisheries. Completed.
	King's Cove.....	July 1959	Renewal of top six feet of superstructure of wharf. Completed.
	Lawn.....	April 1959	Dredging of turning basin completed.
	Leading Ticksles.....	July 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Little Harbour East.....	Resumed May 1959	Construction of extension to existing wharf completed.
	Little Paradise.....	Aug. 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Long Harbour.....	Aug. 1959	Reconstruction of Boat Depot Wharf completed.
	Lower Island Cove.....	Oct. 1958	Construction of extension to wharf. Completed.
	Mall Bay.....	Dec. 1959	Construction of "T"-shaped breakwater-wharf. In progress.
	Ming's Bight.....	July 1959	Construction of "T"-shaped wharf completed.
	Monkstown.....	May 1959	Construction of wharf completed.
	Musgrave Harbour.....	June 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
	Musgravetown.....	Nov. 1958	Construction of wharf completed.
	Newman's Sound.....	June 1959	Construction of wharf in Terra Nova National Park for Department of Northern Affairs and National Resources. Completed.
	Nipper's Harbour.....	Aug. 1958	Construction of two timber cribwork and ballast breakwaters. Completed
	Old Perlican.....	July 1959	Construction of extension to wharf completed.
	Pacquet.....	July 1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.

	May	1959	
Peter's River.....	.....	.....	Enlargement of landing facilities and installation of two additional hoists and stationary engines. In progress.
Point Lance.....	Nov.	1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
Point Lance.....	Aug.	1959	Construction of breakwater-wharf. In progress.
Pond Cove.....	Sept.	1959	Construction of "L"-shaped wharf. In progress.
Port-aux-Basques.....	Nov.	1957	Dredging of five areas in harbour.
Portugal Cove South.....	June	1959	Construction of extension to breakwater. In progress.
Ramea.....	Sept.	1959	Repairs to coastal wharf completed.
Rose Blanche.....	Oct.	1959	Reconstruction of coastal wharf completed.
St. Bride's.....	June	1959	Construction of two breakwaters. In progress.
St. John's.....	June	1959	Dredging of harbour for new main terminal.
St. John's.....	Feb.	1959	Demolition of buildings and timber wharves, construction of retaining wall, south and west of new Department of Transport wharf, and three timber pile supported wharves. Completed.
St. John's.....	Nov.	1959	Demolition of part of C.N.R. wharf and remains of buildings damaged by fire in July, 1959. Completed.
St. John's.....	Jan.	1959	Construction of Marine Agency Wharf on south shore of St. John's Harbour, for Department of Transport. In progress.
St. John's.....	Jan.	1960	Construction of Main Terminal Pier. In progress.
St. John's.....	Feb.	1960	Removal of part of bow of sunken vessel, S.S. <i>Desola</i> . Completed
St. John's.....	July	1959	Demolition of wharves and buildings at the A. E. Hickman premises. Completed.
St. Lawrence.....	Dec.	1958	Construction of a fishermen's wharf completed.
Ship Harbour.....	Resumed	.....	Construction of "L"-shaped wharf completed.
Summerside.....	April	1959	Construction of extension to wharf completed.
Summerside.....	May	1959	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
Tizzard's Harbour.....	July	1959	Construction of wharf completed.
Trinity.....	Aug.	1959	Construction of extension to wharf completed.
Trinity East.....	July	1959	Construction of wharf to replace old structure. Completed.
Triton.....	Oct.	1958	Construction of Community Stage and Wharf for Department of Fisheries. In progress.
Trout River.....	July	1959	Construction of breakwater completed.
Wild Cove.....	Aug.	1959	Construction of breakwater. In progress.
Williams Harbour (Labrador).....	Sept.	1959	Construction of wharf. In progress.
Witless Bay.....	Resumed	.....	Construction of extension to wharf with a docking face at the head. Completed.
Woody Point.....	May	1959	Reconstruction and extension of existing wharf completed.
York Harbour.....	Resumed	.....	Construction of wharf completed.
Alborton.....	July	1959	Construction of "L"-shaped extension to outer end of Railway Wharf. Completed.
Beach Point.....	Mar.	1959	Repairs to wharf completed.
Charlottetown.....	Aug.	1959	Replacement of west shed on Railway Wharf by new timber structure and of timber boiler house by a concrete-brick structure. Completed.
Charlottetown.....	May	1959	Installation of heating and plumbing facilities in new timber shed on Railway Wharf. Completed.
Charlottetown.....	Sept.	1959	Construction of retaining wall.
Charlottetown.....	July	1959	Installation of temperature control system in east warehouse on Railway Wharf. Completed.
Charlottetown.....	Mar.	1959	Construction of Dredge No. 10 to replace departmental Dredge No. 14. Completed.
Dredging Plant.....	Feb.	1959	Construction of 40-foot tug for use in Charlottetown District. Completed.
Dredging Plant.....	Mar.	1959	Supply of machinery, including a sand pump and assembly base, cutters, general service pump and ladder, for departmental Dredge No. 12. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Province	Location	Date Work Began	Description
PRINCE EDWARD ISLAND— <i>Concluded</i>	Dredging Plant.....	June 1959	Construction of two 60-cubic yard dump scows for use with new departmental Dredge No. 10. In progress.
	Georgetown.....	Sept. 1959	Repairs to Queen's Wharf completed.
	Howard's Cove.....	July 1959	Construction of a landing. In progress.
	Jude's Point.....	June 1959	Construction of extension to landing completed.
	New London.....	May 1959	Reconstruction of breakwater and construction of sand collection crib. Completed.
	North Lake.....	May 1959	Construction of extension to north breakwater pier. Completed.
	North Lake.....	Oct. 1959	Dredging of inner harbour and mooring area completed.
	Point Prim.....	Aug. 1959	Reconstruction of wharf approach completed.
	Sturgeon Bridge.....	April 1959	Construction of a landing completed.
	Tracadie Harbour.....	Aug. 1959	Construction of a wharf and a roadway approach. In progress.
	West Point.....	June 1959	Construction of extension to breakwater completed.
	Alendale.....	Feb. 1960	Construction of a wharf at the end of existing approach. In progress.
	Arrow Point.....	June 1959	Repairs to breakwater completed September, 1959.
NOVA SCOTIA	Bailey's Brook.....	May 1959	Construction of breakwater. Completed.
	Broad Cove Marsh.....	Nov. 1959	Construction of extension to existing wharf. In progress.
	Cape Negro.....	Oct. 1959	Construction of a pilework wharf with a rock fill approach. Completed.
	Cape St. Mary's.....	May 1959	Concrete placed in untreated timber cribwork section of wharf. Completed.
	Caribou.....	Sept. 1959	Construction of two mooring dolphins at Ferry Terminal Wharf to act as guide piers for the ferry. Completed.
	Caribou.....	Aug. 1959	Dredging of five areas adjacent to ferry terminal. Completed.
	Caribou.....	April 1959	Emergency repairs to Ferry Terminal Wharf. Completed.
	Central Port Mouton.....	Aug. 1959	Dredging of a mooring basin with an entrance channel. Completed.
	Central Port Mouton.....	Nov. 1959	Construction of rubble mound breakwater from the mainland to Charlie Island, with wharf. In progress.
	Chapel Cove.....	July 1959	Dredging to provide a mooring area and entrance to harbour. In progress.
	Chegoggin Point.....	Jan. 1960	Repairs to breakwater. In progress.
	Cheticamp Point.....	Aug. 1959	Repairs to wharf. In progress.
	Clarke's Harbour.....	Jan. 1960	Reconstruction of part of main wharf and construction of extension to finger wharf. In progress.
	Clarke's Harbour.....	Nov. 1959	Placing of armour stone and a reinforced concrete top on breakwater. Completed.
	Cribbin's Point.....	Aug. 1959	Construction of extension to wharf. Completed.
	Cripple Creek.....	April 1959	Construction of a breakwater completed south of breakwater-wharf.
	Delaps Cove.....	April 1959	Reconstruction of breakwater. Completed.
	Dennis Point.....	Mar. 1959	Construction of wharf and dredging harbour. Completed.
	Digby.....	April 1959	Annual maintenance of the spur and main wharves. Completed.
	Dover.....	Nov. 1958	Reconstruction of inner section of wharf. Completed.
	Dredging Plant.....	Mar. 1959	Annual repairs to Dredge No. 21 completed.
	Dredging Plant.....	Mar. 1959	Construction of Half-Yard Shovel Dredge to replace old clam shell unit.
	Dredging Plant.....	Feb. 1959	Construction of Twin Screw Tug for new Dredge No. 16.
	Dredging Plant.....	Mar. 1959	Construction of two Hopper Scows for new Dredge No. 16.
	Drum Head.....	Aug. 1959	Dredging between Old Public Wharf and Greencorn's Wharf.
	Eastern Passage.....	June 1959	Reconstruction of approach section of public breakwater-wharf. Completed.

East Sandy Cove.....	June 1959	Maintenance dredging. Completed.
Falls Point.....	Sept. 1959	Reconstruction of inner part of main stem of wharf. Completed.
Finlay Point.....	Mar. 1959	Removal and reconstruction of breakwater.
Gabarus.....	June 1959	Dredging of entrance channel, inner channel and mooring basin. Completed.
Goldboro.....	May 1959	Reconstruction of wharf and repairs to freight shed.
Grand Etang.....	April 1959	Repairs to piers along both sides of channel. Completed.
Gunning Cove.....	Oct. 1959	Reconstruction of wharf completed.
Judique (Baxter's).....	Nov. 1959	Reconstruction of wharf and dredging of a mooring basin. Completed.
Kelly's Cove.....	April 1959	Repairs to breakwater on the seaward side. Completed.
Little Harbour.....	Sept. 1959	Redredging in the mooring area and entrance channel. Completed.
Little Tanook.....	Mar. 1960	Demolition of stem of existing breakwater and construction of a breakwater with a wave-break along the seaward side and a landing ramp on the harbour side. In progress.
Lockeport.....	April 1959	Construction of a wharf. Completed.
Long Cove (Port Medway).....	May 1959	Repairs to East Breakwater. Completed.
Lower Prospect.....	Sept. 1959	Construction of cribwork wharf with a pile bent ell. Completed.
Lower Woods Harbour.....	Dec. 1959	Construction of reinforced concrete wharf with wavebreak, and a stone approach with mass concrete top and a gravel road approach. Completed.
Main-à-Dieu.....	Aug. 1959	Construction of extension to West Breakwater. Completed.
Malagash.....	July 1959	Dredging to enlarge entrance channel and mooring basin. Completed.
Meteghan.....	June 1959	Placing a rock talus on harbour side and top of breakwater. Completed.
Middle East Pubnico.....	July 1959	Dredging of entrance channel, mooring basin and along northern side of wharf. Completed.
Mill Cove.....	Mar. 1959	Reconstruction of breakwater. Completed.
Mulgrave.....	Feb. 1960	Construction of a wharf and quay wall. In progress.
New Campbellton.....	Oct. 1959	Reconstruction of wharf. In progress.
Newellton.....	May 1959	Reconstruction of main stem of wharf and construction of an extension and ell. In progress.
New Haven.....	April 1959	Construction of a rock mound breakwater and an approach road. Completed.
North Sydney.....	Mar. 1959	Reconstruction of wharf and protection works. Completed.
Parrsboro.....	Sept. 1959	Construction of vessel bed. Completed.
Pictou.....	Sept. 1959	Repairs to Pier "C" completed.
Pictou.....	Nov. 1959	Removal of superstructure of quay wall destroyed by fire on July 6, 1959. Completed.
Pictou.....	Feb. 1960	Reconstruction of quay wall and extension destroyed by fire on July 6, 1959. In progress.
Port Hood.....	July 1959	Construction of rock mound breakwater from North of town of Port Hood to Port Hood Island. In progress.
Port La Tour.....	Aug. 1959	Reconstruction of wharf and placing of reinforced concrete deck on the approach. Completed.
Port Matland.....	April 1959	Placing rock talus on seaward side and ends of detached breakwater. Completed.
Port Morien.....	June 1959	Reconstruction of primary breakwater to protect wharf. Completed.
Queensport.....	Dec. 1959	Construction of wharf. In progress.
St. Catherine's River.....	April 1959	Construction of extension with an ell to existing breakwater. Completed.
Seal Island.....	Nov. 1959	Repairs to West breakwater.
Shag Harbour.....	Aug. 1959	Reconstruction of timber cribwork section of main stem of breakwater. Completed.
Shag Harbour.....	Oct. 1959	Reconstruction of main stem of wharf. Completed.
Shelburne.....	April 1959	Repairs to wharf. Completed.
Short Beach.....	Feb. 1960	Repairs to retaining wall. In progress.
Smithville.....	Aug. 1958	Dredging of entrance channel and mooring basin completed.
South Side.....	May 1959	Replacement of inner section of breakwater with mass concrete.
Stoney Island.....	May 1959	Stone talus placed along seaward side of breakwater. Completed.
Sydney.....	April 1959	Construction of extensions along south and west faces of wharf and improvements to south-west section. Completed.
Trout Cove.....	April 1959	Construction of new breakwater along entire seaward side joined to stem of old breakwater by retaining wall. Completed.
Upper Blandford.....	May 1959	Construction of extension to existing breakwater. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Province	Location	Date Work Began	Description
NOVA SCOTIA— <i>Concluded</i>	Upper Port La Tour.....	Dec. 1958	Construction of wharf and approach and dredging of mooring basin. In progress.
	West. Arichat.....	Nov. 1959	Reconstruction of breakwater. In progress.
	Westport.....	Mar. 1960	Reconstruction of outer section of wharf. In progress.
	Yarmouth.....	June 1959	Reconstruction of inner part of wharf and ferry ramp. Completed.
	Yarmouth Bar.....	April 1959	Sweeping and sounding of turning basin at Yarmouth Ferry Terminal. Completed. Reconstruction of breakwater.
NEW BRUNSWICK	Back Bay.....	Aug. 1958	Construction of rubble mound breakwater completed.
	Bathurst.....	April 1959	Dredging of main channel and mooring basin at public wharf. Completed.
	Black's Harbour.....	Sept. 1959	Reconstruction of cribwork portion of wharf approach and pierhead. Completed.
	Campbellton.....	May 1959	Dredging of the entrance channel and berths in front of the deep water wharf. Completed.
	Caraquet.....	Jan. 1960	Reconstruction of approach to Young's Wharf and repairs to pierhead. In progress.
	Chance Harbour.....	Aug. 1959	Construction of extension to breakwater. In progress.
	Cumming's Cove.....	May 1959	Removal of old timber cribwork pierhead and approach sections of wharf. Completed.
	Dalhousie.....	Sept. 1958	Construction of wharf and extension to provide a winter port. In progress.
	Escuminac.....	Aug. 1959	Repairing and reinforcing a section of approach to breakwater. Completed.
	Harshman's Brook.....	Oct. 1959	Repairs to East and West breakwaters completed.
	Ingall's Head.....	May 1959	Construction of extensions to the two existing breakwaters and a spur at right angles to the north breakwater. Completed.
	Ingall's Head.....	Aug. 1959	Dredging of two areas in the harbour completed.
	Leonardville.....	Feb. 1959	Construction of rubble mound breakwater completed.
	Lower Newcastle.....	June 1959	Repairs to wharf completed.
	Mace's Bay.....	Mar. 1959	Construction of extension to breakwater with a wavebreak to surmount the seaward side of the structure. Completed.
	Malloch's Beach.....	July 1959	Dredging of two areas in the harbour completed.
	Newcastle.....	May 1959	Repairs to wharf completed.
	North Head (Grand Manan).....	Aug. 1957	Construction of breakwater-wharf parallel to present structure, complete with freight shed and services. Completed.
	Richibucto Beaches.....	July 1959	Repairs to north and south breakwaters completed.
	Robichaud.....	May 1959	Construction of extension to north west corner of wharf. Completed.
	Saint Andrews.....	Feb. 1960	Installation of an underground asbestos-cement pressure pipe line from main C. P. R. pipe line under the Saint John-St. Andrews highway, for the Biological Station of Fisheries Research Board of Canada. In progress.
	Saint Andrews.....	May 1959	Construction of a wharf, with a floating slip and landing platform on the harbour side, and a concrete sea wall along the sea face of the Biological Station property for Fisheries Research Board of Canada. Completed.
	Saint John (Courtenay Bay).....	May 1958	Dredging of turning basin and channel adjacent to turning basin. In progress.
	Saint John (Courtenay Bay).....	Aug. 1959	Dredging of main channel.
	Saint John.....	Mar. 1958	Construction of Marine Agency Wharf for Department of Transport. Completed.
	Saint John (Negro Point).....	Aug. 1958	Reconstruction of breakwater completed.
	Seal Cove.....	Sept. 1958	Construction of extension to outer breakwater with timber wavebreak along seaward side. Completed.
	Seal Cove.....	June 1959	Repairs to East and West breakwaters in progress.
	Sealey's Cove.....	Sept. 1958	Dredging of mooring basin completed.

Stuarttown.....	Jan. 1959	Construction of stone breakwater completed.
Weishpool.....	July 1959	Removal of old wharf and construction of extension to new wharf. Completed.
Whitehead.....	June 1959	Dredging of entrance channel and mooring basin completed.
Wilson's Beach.....	June 1959	Construction of extension to breakwater and a new gangway for the floating slip. Completed.
Aguanish.....	Sept. 1959	Construction of extension to landing pier and a shed on east side of existing pier. Completed.
Anse au Griffon.....	Nov. 1959	Removal of old wall and construction of rock-filled wire basket apron substructure. Completed.
Batiscan.....	Sept. 1959	Reconstruction of wharf headblock. In progress.
Beboel.....	June 1959	Construction of retaining wall completed.
Cap-aux-Meules, M.I. (Grindstone).....	June 1959	Repairs to wharf completed.
Cap Chat.....	July 1959	Reconstruction of deep water wharf completed.
Cap-de-la-Madeleine.....	Nov. 1959	Construction of retaining walls completed.
Cap-de-la-Madeleine.....	Dec. 1959	Repairs to retaining wall west of Government Wharf. In progress.
Champlain.....	June 1959	Construction of two retaining walls completed.
Chandler.....	Jan. 1960	Test blasting of a quarry to find suitable stone for proposed rubble mound breakwater. In progress.
Contrecoeur.....	Sept. 1959	Construction of two stone masonry retaining walls completed.
Entry Island.....	Aug. 1959	Repairs to slipway and construction of extension to wharf with wavebreak along seaward side. In progress.
Forestville.....	Nov. 1958	Repairs to wharf completed.
Fryer's Island Dam.....	June 1958	Construction of residence for Damkeeper completed.
Fryer's Island Dam.....	Sept. 1959	Painting of exposed steel work in dam structure completed.
Gascous (Anse Mercier).....	July 1959	Enlargement of wharf to provide turning area and stabilize the structure. Completed.
Gaspé (Davis Wharf).....	Sept. 1959	Repairs to wharf including a new "L"-shaped landing completed.
Gaspé (Paddy Shoals).....	June 1959	Dredging to improve navigation in harbour completed.
Gaspé (Sandy Beach).....	July 1959	Improvements to inner face of wharf to permit ships to tie close. Completed.
Grande Vallée.....	Sept. 1959	Reconstruction of outer section of south jetty completed.
Gros Cap.....	May 1959	Construction of breakwater completed.
Havre Aubert, M.I. (Amherst).....	June 1959	Construction of wharf to provide public landing facilities. Completed.
Île-à-Michon.....	July 1959	Construction of wharf to provide loading and berthing facilities. Completed.
Île-aux-Noix.....	Aug. 1959	Construction of new wharf on east side for Department of Northern Affairs and National Resources. Completed.
Lake Megantic.....	Oct. 1959	Construction of retaining wall completed.
La Malbaie.....	Apr. 1959	Construction of extension to breakwater completed.
Lanoraie.....	July 1959	Construction of stone rip rap retaining wall completed.
Lavallée.....	June 1959	Construction of stone rip rap retaining wall completed.
Les Eboulements.....	Apr. 1959	Repairs to wharf and reconstruction of slip and hoisting apparatus for the ferry bridge. Completed.
Little English Bay (Baie Comeau).....	Oct. 1959	Dredging of two areas in harbour completed.
Matane.....	June 1959	Construction of retaining wall along shoreline west of the harbour. Completed.
Matane.....	June 1959	Dredging of harbour completed.
Mont Louis.....	July 1959	Reconstruction of centre of commercial wharf completed.
Newport Point.....	Oct. 1959	Construction of wharfage facilities. In progress.
Nicolet River.....	Sept. 1959	Dredging in Nicolet River. In progress.
Paspebiac.....	Aug. 1957	Reconstruction of wharf completed.
Petit Cap.....	May 1959	Reconstruction of breakwater completed.
Petite-Rivière-au-Renard.....	June 1959	Reconstruction of the south jetty and the pile wall on east side of the river. Completed.
Petit Saguenay.....	Dec. 1959	Reconstruction of deep water wharf in progress.
Pointe-au-Père.....	Aug. 1959	Construction of winter port to provide year-round service between the South and North shores of the St. Lawrence. In progress.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Province	Location	Date Work Began	Description
QUEBEC— <i>Concluded</i>	Pointe-au-Pic.....	June 1959	Enlargement of west side of existing wharf completed.
	Port St-François.....	Mar. 1959	Repairs to retaining wall.
	Quebec (Louise Basin).....	Jan. 1959	Construction of storage shed on Inner Louise Basin wharf to replace departmental shed on the Queen's Wharf. Completed.
	Quebec (Queen's Wharf).....	Oct. 1958	Construction of extension to wharf and adjacent basin for use of pilot boats.
	Richelieu River (Ash Island).....	June 1959	Dredging to remove 4 shoals between Naylor Point and U.S. border. In progress.
	Richelieu River (McMasterville).....	June 1959	Dredging of one-mile section of river at McMasterville completed.
	Rimouski.....	May 1959	Repairs and improvements to wharf, relocation of water line from town line to the transit shed, and raising the level of railroad track adjacent to western corner of inner basin. Completed.
	Rivière-au-Renard.....	July 1959	Widening and levelling of middle section of wharf completed.
	Rivière-du-Loup.....	May 1959	Repairs to wharf completed.
	Rivière-du-Loup.....	Nov. 1959	Widening of wharf, enlarging of the approach, relocation of movable slip, supporting of the hoisting apparatus and construction of new retaining wall in slip opening. In progress.
	Rivière-du-Loup.....	April 1959	Dredging of two berths and two basins.
	Ste-Anne-de-Sorel.....	May 1959	Construction of protection wall to replace original wall damaged by ice action and erosion. Completed.
	St-Charles-sur-Richelieu.....	July 1959	Construction of three stone masonry retaining walls completed.
	St-Denis-sur-Richelieu.....	Aug. 1959	Construction of retaining walls along village shoreline. Completed.
	Ste-Flavie.....	Jan. 1960	Repairs to wharf. In progress.
	St-Irénée.....	Oct. 1959	Repairs to concrete walls on each side of approach to deep water wharf. Completed.
	St-Jean, I.O.....	Sept. 1959	Construction of concrete retaining wall.
	St-Laurent, I.O.....	Dec. 1959	Construction of five sections of concrete retaining wall completed.
	St-Laurent, I.O.....	Nov. 1959	Reconstruction of south-west part of wharf completed.
	St-Marthe (Cap-de-la-Madeleine).....	July 1959	Construction of stone retaining wall with gravel fill.
	St-Mathias.....	Sept. 1959	Construction of stone rip rap retaining walls fronting the village. Completed.
	St-Ours.....	Oct. 1959	Construction of retaining wall along east shore of Richelieu River. In progress.
	St-Romuald.....	June 1959	Construction of concrete protection wall.
	St-Siméon.....	Mar. 1959	Reconstruction of east side of wharf completed.
	St-Vallier.....	Sept. 1959	Construction of stone embedded in concrete retaining wall. In progress.
	Sept-Îles (Pte-aux-Basques).....	Oct. 1959	Paving and decking on wharf.
	Sept-Îles.....	June 1958	Construction of new wharf with two sheds to provide adequate loading facilities. In progress.
	Tracy.....	Aug. 1959	Construction of stone retaining wall completed.
	Trois-Rivières (Pointe-aux-Ormes).....	Sept. 1959	Construction of stone approach and cribwork wharfthead.
	Yamachiche River.....	Oct. 1958	Dredging in Lake St. Peter and Yamachiche River to widen and deepen the channel and to provide a turning basin near the public wharf. In progress.
ONTARIO	Amherstburg.....	Nov. 1959	Construction of shoreline protection work on east shore of channel. In progress.
	Barrie.....	Nov. 1959	Construction of extension to wharf. In progress.
	Belle River.....	June 1959	Dredging of channel adjacent to the east pier completed.
	Burlington Beach.....	Nov. 1959	Dredging in connection with construction of Burlington Beach Wharf. In progress.
	Burlington Beach.....	Sept. 1959	Construction of Burlington Beach Wharf (Stage 1). In progress.
	Cedar Beach.....	Sept. 1958	Construction of extension to training walls in Cedar Creek. Completed.
	Collingwood.....	Oct. 1959	Maintenance repairs to East Breakwater completed.

Port William.....	June 1959	Dredging in areas "A" and "B" of the Kaministiquia River. In progress.
Port William.....	June 1959	Dredging in Westford Turning Basin completed.
Goderich.....	May 1959	Dredging on south side of Inner Harbour, between the entrance piers and between the piers and breakwaters. Completed.
Grand Bend.....	May 1959	Construction of an anchored steel sheet pile wall on south side of harbour and dredging of adjacent area. Completed.
Hamilton.....	July 1959	Dredging from the new Hamilton Harbour Commission dock at Ship Street along the Stelco Ore Dock No. 2 to deep water in the harbour. In progress.
Hamilton.....	Aug. 1958	Construction of Terminal Wharf No. 3, Ship Street (Stage 3). Completed.
Hamilton.....	Sept. 1959	Dredging of turning basin at Strathearn Avenue (Stage 3).
Hamilton.....	June 1959	Construction of inner portion of wharf at Strathearn Avenue (Stage 3). In progress.
Kincardine.....	Sept. 1959	Dredging in entrance channel from the outer end of the piers. In progress.
Lakehead.....	July 1959	Construction of temporary access roads and bridges across the McIntyre and Neebing Rivers to meet construction and traffic needs during the early stages of Harbour Terminal construction (Stage 1). Completed.
Lakehead.....	Sept. 1959	Dredging of area adjacent to wharf, Harbour Terminal construction (Stage 2). In progress.
Lakehead.....	Feb. 1960	Placing and stockpiling granular fill, Harbour Terminal construction (Stage 4).
Leamington.....	May 1959	Maintenance dredging on easterly side of public wharf completed.
Nipigon.....	Sept. 1959	Dredging of two areas in Nipigon Harbour completed.
Perch Creek.....	May 1959	Construction of new wall, repairs to existing wall and dredging of channel between the walls. Completed.
Port Arthur.....	June 1958	Dredging in Main Harbour Centre completed.
Port Bruce.....	Dec. 1959	Reconstruction of section of breakwater-pier completed.
Port Bruce.....	Mar. 1959	Repairs to retaining wall on west side of harbour completed.
Port Burwell.....	July 1959	Maintenance dredging of two sections of entrance channel. Completed.
Port Burwell.....	Sept. 1959	Construction of steel sheet pile wall in front of existing quay wall. Completed.
Port Colborne.....	Oct. 1958	Repairs to a section of the West breakwater completed.
Port Dover.....	June 1959	Repairs to timber cribwork west pier and placing of concrete superstructure. Completed.
Port Maitland.....	Aug. 1959	Dredging of channel in the Grand River and in the Toronto, Hamilton and Buffalo Railway Company's slip. In progress.
Port Maitland.....	March 1960	Repairs to centre section of west pier. In progress.
Port Maitland.....	Oct. 1958	Repairs to two sections of west pier completed.
Port Rowan.....	July 1959	Dredging of an approach channel and a channel on the easterly side of wharf. Completed.
Port Stanley.....	July 1959	Maintenance dredging in the approach channel, outer harbour, inner harbour and turning basin completed.
Port Stanley.....	Feb. 1960	Construction of steel sheet pile wall to replace a deteriorated section of the East pier. Completed.
Puce River.....	Feb. 1959	Dredging of channel and reconstruction of east protection wall completed.
Rondeau (Erieau).....	Feb. 1958	Construction of boat harbour, a rubble mound breakwater and dredging the adjacent area. Completed.
St. Clair River.....	Aug. 1959	Removal of old timber piles in vicinity of Courtright, Port Lambton, and Sombra completed.
Sarnia.....	Aug. 1958	Construction of two new sheds to increase freight shed floor space. Completed.
Sault-Ste.-Marie.....	Aug. 1959	Repairs to public wharf. In progress.
Thessalon.....	Sept. 1959	Repairs to wharf completed.
Thornbury.....	July 1959	Construction of rubble stone breakwater between north-east corner of East Pier and existing rubble stone breakwater. Completed.
Toronto.....	Sept. 1959	Dredging in Toronto Harbour from south of the Eastern Channel to the Harbour Line. Completed.
Toronto.....	April 1959	Construction of extension to Toronto Island Airport Runway (Stage 1), for Department of Transport.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Province	Location	Date Work Began	Description
ONTARIO— <i>Concluded</i>	Toronto.....	July 1959	Construction of extension to Toronto Island Airport Runway (Stage 2), for Department of Transport.
	Walpole Island.....	Feb. 1959	Construction of stone rip rap protection wall for Department of Citizenship and Immigration
	Wheatley.....	Dec. 1959	Reconstruction of retaining wall and a timber trestle jetty. In progress.
	Wheatley.....	Oct. 1959	Dredging of entrance channel and turning basin.
	Whitby.....	Sept. 1959	Dredging of the approach channel and turning basin. In progress.
	Whitby.....	Oct. 1959	Construction of timber crib wharf with a rubble stone and concrete approach. Completed.
	Whitby.....	May 1959	Construction of timber crib wharf with a rubble stone and concrete approach. Completed.
	Whitby.....	Jan. 1959	Construction of a boat landing for R.C.M.P., repairs to R.C.M.P. Building and dredging. Completed.
	Windsor.....	Aug. 1959	Construction of steel hull for Dredge No. 210.
	Dredging Plant.....	Jan. 1960	Construction of extension to wharf. In progress.
MANITOBA	Gimli.....	July 1959	Construction of extension to cribwork wharf completed.
	Gull Harbour.....	Nov. 1959	Construction of "L"-shaped extension to wharf and a rock filled approach. In progress.
	The Pas.....	Feb. 1960	Repairs to East Training Wall.
	Red River Mouth.....	June 1959	Repairs to retaining wall.
	St. Andrew's Lock and Dam.....	April 1959	Dismantling departmental Dredge No. 324 and auxiliary plant and transporting by rail from Kamloops, B.C., then reassembling and launching at Waterways, Alta. The dredge is required to carry out urgent dredging in the inner harbour at Tuktoyaktuk, N.W.T. Completed.
	Dredging Plant.....	Mar. 1959	Construction of wharf with a gravel causeway completed.
ALBERTA	Wabamun.....	May 1959	Construction of additional breakwater and relocating four of the floating log raft breakwater sections. Completed.
	Alert Bay.....	April 1959	Dredging of mooring basin and entrance channel completed.
	Bella Bella.....	June 1959	Removal of existing floats and construction of new floats, an approach and gangway. Completed.
	Bella Bella.....	Oct. 1959	Renewal of decking, guards and handrails of the approach, wharf, and loading platform. Completed.
	Bella Coola.....	Apr. 1959	Construction of a rock mound breakwater completed.
	Campbell River.....	June 1959	Dredging of an area approximately 600 feet long and 300 feet wide completed.
	Campbell River.....	Feb. 1960	Construction of floats buoyed with fibre glass and plastic covered pontoons. Completed.
	Campbell River.....	May 1959	Annual overhaul and repairs to Dredge No. 303 completed.
	Dredging Plant.....	April 1959	Annual overhaul of Dredge No. 322 and auxiliary plant completed.
	Dredging Plant.....	Dec. 1959	Construction of a twin screw diesel electric side suction sea-going hopper dredge, for service in the Fraser River estuary. In progress.
BRITISH COLUMBIA	Dredging Plant.....	July 1959	Equipping snagboat "Samson V" with a new boiler completed.
	Esquimalt (Pilgrim Cove).....	Feb. 1959	Provision of new floats and moorings to existing piles.
	Esquimalt.....	Feb. 1959	Provision of four new floats and replacement of services.
	Esquimalt.....	Aug. 1959	Removal and repairs to existing floats and superstructure at Jetty C.

BRITISH COLUMBIA —Continued	Ford's Cove (Hornby Island).....	July	1959	Removal of close pile breakwater, construction of wharf and extension to rock breakwater, and dredging of area. Completed.
	Fraser River (Deas and Rose Islands)	Nov.	1959	Placing of new rock bank protection as extension to existing work. Completed.
	Fraser River.....	Aug.	1959	Dredging in Fraser River at Stevenson Cut, Tillbury Range, Annieville Channel, Searle Elevator, and Pacific Coast Terminals area completed.
	Fraser River.....	1959-1960		Maintenance dredging to remove gravel bars from Sumas to Hope. In progress.
	Fraser River.....	Nov.	1958	Dredging of area in Morey Channel for use as a seaplane landing for Department of Transport completed.
	Fraser River (Spaghetetti Point).....	Apr.	1959	Construction of a cut-off dam as an extension to existing Dam "S", and repairs to cut-off Dam "P" completed.
	Gibson's Landing.....	Nov.	1958	Construction of breakwater, dredging in the area, relocation of floats and provision of a new pontoon float. Completed.
	Gilford and Turnour Islands.....	Jan.	1960	Construction of a float, moored with piles, and a timber trestle approach with gangway at Karlukwees Indian Village for Department of Citizenship and Immigration. Completed.
	Harrison River Rapids.....	May	1959	Renewal of log boom guides completed.
	Kincolith.....	Mar.	1959	Construction of a log float, moored with piles, and a timber trestle approach with gangway at Kincolith Indian Village for Department of Citizenship and Immigration. Completed.
	Nanaimo.....	Mar.	1959	Removal of cast iron water main and fire hydrants and installation of steel pipe and four fire hydrants on Assembly Wharf. Completed.
	Nanaimo (Commercial Inlet).....	Jan.	1960	Replacement of log floats with new plywood pontoon floats, renewal of superstructure on approach and wharfhed and replacing of gangway. Completed.
	Nanaimo	1959-60		Annual maintenance repairs to Assembly Wharf completed.
	Nanaimo (Farmer's Landing).....	Jan.	1959	Replacement of five log floats and renewal of approach ramp, wharfhed and gangway. Completed.
	Nanaimo (Pacific Biological Station).	Jan.	1959	Construction of salmon tanks for Department of Fisheries, Fisheries Research Board of Canada. In progress.
	New Westminster (Fisheries Station).	Mar.	1959	Rehabilitation of electrical system.
	Nootka.....	Nov.	1959	Reconstruction of approach, wharfhed and shed completed.
	Ocean Falls.....	Jan.	1959	Construction of floats, an approach and connecting gangway completed.
	Okanagan Landing.....	Jan.	1959	Construction of "L"-shaped breakwater completed.
	Peachland.....	Dec.	1959	Construction of "L"-shaped breakwater completed.
	Port Alberni.....	Mar.	1959	Renewal of wharf area, with creosoted superstructure and pre-cast concrete deck panels. In progress.
	Prince Rupert (Sourdough Bay).....	Jan.	1959	Construction of reinforced concrete boat grid and timber shed roof for Department of Transport.
	Prince Rupert (Fairview Bay).....	Mar.	1959	Reconstruction of floats completed.
	Sidney.....	Feb.	1959	Completion of a ferry terminal including a parking compound, customs building, an approach, a turnaround, passenger waiting room and a steel ramp with apron, gantry works and fendering dolphins.
	Sidney.....	Jan.	1959	Construction of new breakwater and two new floats completed.
	Sointula.....	Feb.	1959	Construction of rock mound breakwater completed.
	Sointula.....	May	1959	Dredging of basin completed.
	Sointula.....	Oct.	1959	Construction of approach, wharfhed and floats completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Concluded

Province	Location	Date Work Began	Description
BRITISH COLUMBIA —Concluded	Sooke.....	Mar. 1959	Construction of new approach and wharfhead completed.
	Steveston.....	Jan. 1960	Construction of an ice shear boom and breakwater completed.
	Survey Launch.....	Oct. 1959	Construction of new Survey Launch to replace Survey Launch "Baldpate".
	Tofino.....	July 1959	Dredging of harbour completed.
	Tofino.....	Feb. 1960	Construction of rock mound breakwater, a pile and plank breakwater, an approach and five pontoon floats. In progress.
	Turkey Head.....	Aug. 1959	Construction of rock mound breakwater to extend from Turkey Head on Oak Bay towards Mary Tod Island to close this channel. In progress.
	Vancouver.....	Feb. 1960	Construction of a concrete deck wharf, shed and additional floats. In progress.
	Victoria (Erie Street).....	Mar. 1959	Renewal of two outer log floats and repairs to wharf completed.
	Westview.....	Dec. 1959	Construction of breakwater. In progress.
	White Rock Pass.....	July 1959	Dredging of channel between Read and Maurelle Islands completed.
	White Rock.....	June 1959	Construction of two extensions to existing breakwater completed.
	Wiah Point.....	Aug. 1959	Dredging of harbour. In progress.
	Zeballos.....	Oct. 1959	Dredging of area and channel in boat harbour and construction of floats, gangway and approach. Completed.

DREDGING BY DEPARTMENTAL DREDGES, 1959-60

NEWFOUNDLAND

Dredge P.W.D. No. 400 operated at the following places: Admirals Beach; Bell Island; Burn Cove; Fox Harbour; Garnish; Jersey Harbour; Long Pond (Manuels); Merasheen; Port au Bras; Port aux Basques; Portugal Cove; Red Island; Rose Blanche (Diamond Cove); Tors Cove. A total of 22,850 cubic yards, scow measurement, was removed.

Dredge P.W.D. No. 20 was transferred to Prince Edward Island during the year.

Dredge P.W.D. No. 22 was leased to the J. P. Porter Co. Ltd. for the work at Port aux Basques and returned during the year.

Drillboat P.W.D. No. 401 was leased to the J. P. Porter Co. Ltd. for work at Port aux Basques and returned during the year.

PRINCE EDWARD ISLAND

Dredge Pownal No. 2 operated at Charlottetown Railway Wharf, Murray River, Victoria and Wood Island. A total of 39,410 cubic yards, scow measurement, was removed.

Dredge No. 14 operated at Basin Head, Belle River, French Creek, Sturgeon and Wood Islands. A total of 20,592 cubic yards, scow measurement, was removed.

Dredge No. 20 operated at Alberton, Pictou and Wood Islands. A total of 31,500 cubic yards, scow measurement, was removed.

Dredge No. 25 operated at Anglo-Rustico, Borden, Panmure Island, Red Head, West Point, and Wood Islands. A total of 16,358 cubic yards, scow measurement, was removed.

NOVA SCOTIA

Dredge No. 15 operated at Rose Bay, Broad Cove and East Chester. A total of 11,490 cubic yards was removed.

Dredge No. 18 operated at Murphy's Pond, Port Hood, Port Hood Island, Port Royal, Careys Passage, Drum Head and Little Harbour. A total of 13,046 cubic yards was removed.

Dredge No. 18 operated at Eastern Passage, Petpeswick, Tangier and Murphy's Cove. A total of 14,377 cubic yards was removed.

Dredge No. 21 operated at Yarmouth. A total of 248,234 cubic yards was removed.

NEW BRUNSWICK

Dredge No. 23 operated at Caraquet, Claire Fontaine, Kouchibouguac River, Point Sapin, Ste. Marie-sur-Mer and Shippigan. A total of 28,135 cubic yards was removed.

Dredge No. 24 operated at Chockfish, Little Cape, Lower St. Louis, Pointe du Chene, Richibucto Cape, St. Edward, St. Louis and St. Olivier. A total of 48,730 cubic yards was removed.

QUEBEC

Dredge P.W.D. No. 128 operated at St. Godefroi, Ruisseau Chapados, Gascons (Anse la Barbe), Ruisseau Leblanc, Port Daniel, Grand Riviere, Barachois de Malbaie, Marsoui. A total of 30,340 cubic yards, scow measurement, was removed.

Dredge P.W.D. No. 129 operated at Havre Aubert, Gros Cap, Cap aux Meules, Dune du Sud, Grande Entree. A total of 50,875 cubic yards, scow measurement, was removed.

Hydraulic Dredge P.W.D. No. 125 operated at Hospital Bay, Havre aux Maisons, and Cap Vert. A total of 20,952 cubic yards, place measurement, was removed.

P.W.D. Mobile Crane operated at Anse au Griffon, Cap des Rosiers; Grande Greve, Petite Riviere au Renard, Grande Vallee, Petite Vallee and Anse a Valteau. A total of 14,170 cubic yards, place measurement, was removed.

Dredge No. 130 operated at Baie Trinite, Baie Ste. Catherine (Anse au Portage), Godbout, Ile aux Coudres, Les Escoumains, Quebec (Queen's Wharf), Quebec (Berth No. 8 National Harbour's Board), St. Irene, St. Laurent I.O., Sept-Iles (Pte aux Basques), Sept Iles (Old Wharf), Shelter Bay. A total of 160,128 cubic yards, scow measurement, was removed.

ONTARIO

Dredge P.W.D. No. 116 operated at Port Burwell. A total of 153,431 cubic yards, scow measurement, was removed.

MANITOBA

Dredge No. 201 (Red River II) operated at Red River Mouth. A total of 60,765 cubic yards, place measurement, was removed.

Dredge No. 205 operated at Anderson Point, Calder's Dock, Gimli, Gull Island, Kinnow Bay, McBeth Point, Pigeon Point, St. Andrews Lock & Dam, Selkirk Slough and Winnipeg Beach. A total of 30,113 cubic yards, scow measurement, was removed.

Dredge No. 210 operated at Stefanson's Cut Mossey River Mouth. A total of 13,738 cubic yards, scow measurement, was removed.

ALBERTA AND NORTHWEST TERRITORIES

Dredge 250 operated in the Athabasca River, Alta., and the Athabasca River Delta, Alta. A total of 166,001 cubic yards, place measurement, was removed.

Dredge 251 operated at Brabant Island and Providence Rapids, N.W.T., on the Mackenzie River. A total of 16,660 cubic yards, scow measurement, was removed.

Dredge 252 operated in Athabasca Delta, Athabasca River and Clearwater River, Alta. A total of 96,956 cubic yards, place measurement, was removed.

Dredge 253 operated in the East Channel of the Hay River, N.W.T. A total of 49,014 cubic yards, place measurement, was removed.

Dredge 324 operated in Tuktoyaktuk, N.W.T. Harbour. A total of 45,609 cubic yards, place measurement, was removed.

BRITISH COLUMBIA

Dredge 303 "Fruhling" operated on the Fraser River at Steveston 0 to 6 and 16 to 18 buoys, Steveston Cannery Channel, Tilbury Range, Searle Elevator, and at Nanaimo Assembly Wharf. A total of 636,930 cubic yards, place measurement, was removed.

Dredge 322 operated on the Fraser River at the various channels of the North Arm and at Steveston Cut, Ladner Channel, Morey Channel, Cannery Channel, Annacis Channel, and at English Bay and False Creek (Vancouver). A total of 1,535,614 cubic yards, place measurement, was removed.

Dredge 311 "Arrow Lakes" operated at Columbia River Narrows. A total of 41,568 cubic yards, place measurement, was removed.

BRIDGES

Maintenance and repairs were carried out during the year to the following bridges on behalf of the Development Engineering Branch:

Clair, N.B.; Edmundston, N.B.; St. Leonard, N.B.; Berthierville Bridge, P.Q.; Calumet-Bryson, P.Q.; Chapeau Bridge, P.Q.; Notre Dame du Nord Bridge, P.Q.; Papineauville Bridge, P.Q.; DesJoachim's Interprovincial Bridge, Ont. and P.Q.; Ottawa City Bridges, Ont. and P.Q.; Perley Bridge (Interprovincial), Ont. and P.Q.; Pembroke-Allumette Island Interprovincial Bridge, Ont. and P.Q.; Portage du Fort Interprovincial Bridge, Ont. and P.Q.; Burlington Channel, Ont.; Kingston La Salle Causeway, Ont.; Shellmouth, Man.; New Westminster, B.C.; New Westminster Railway Bridge, B.C.

DAMS

The following dams were in operation during the year:

Fryer's Island Dam; French River Dam System, consisting of Big Chaudiere, Little Chaudiere, New Portage Dams; Latchford Dam; Temiskaming Dams; St. Andrew's Lock and Dam; Lewes River Dam.

DRY DOCKS

The Champlain Dry Dock was occupied for 564 boat-days by 50 ships for a total tonnage of 243,852 tons.

The Lorne Dry Dock was occupied for 345 boat-days by 25 ships for a total tonnage of 56,392 tons.

The Kingston Dry Dock was occupied for 250 days by 38 vessels of a total tonnage of 41,588 tons.

The Selkirk Marine Repair Slip was occupied for 466 boat-days by 24 ships of a total tonnage of 2,748.4 tons.

Esquimalt Dry Dock, Esquimalt, B.C.—25 vessels were docked for repairs, cleaning and painting; the total tonnage being 235,890 tons. The dock was occupied 130 days including Sundays and holidays. 141 vessels were moored at the landing wharf and jetty; the total number of days of occupancy being 971 days and the total tonnage 438,049 tons.

STATEMENT OF FERRY LICENCES IN FORCE DURING THE FISCAL YEAR ENDED MARCH 31, 1960

Alfred, Ont.—Montebello, P.Q.....	\$15.00
Courtright, Ont.—St. Clair, Mich.....	25.00
Cumberland, Ont.—Masson, P.Q.....	10.00
Fitzroy Harbour, Ont.—Quyon, P.Q.....	250.00
Kingsville, Ont.—Sandusky, Ohio.....	25.00
La Passe, Ont.—Fort Coulonge, P.Q.....	10.00
Niagara Falls, Ont.—Niagara Falls, N.Y.....	25.00
Port Lambton, Ont.—Roberts Landing, Mich.....	25.00
Prescott, Ont.—Ogdensburg, N.Y.....	1.00
Rainy River, Ont.—Baudette, Minn.....	1.00
Rockcliffe, Ont.—Gatineau Point, P.Q.....	25.00
St. Andrews, N.B.—Robbinston, Maine.....	10.00
Sand Point, Ont.—Norway Bay, P.Q.....	10.00
Sault Ste. Marie, Ont.—Sault Ste. Marie, Mich.....	100.00
Sombra, Ont.—Marine City, Mich.....	1.00
Stag Island, Ont.—Marysville, Mich.....	25.00
Walpole Island, Ont.—Algamac, Mich.....	25.00
Niagara-on-the-Lake, Ont.—Youngstown, N.Y.....	25.00

DEVELOPMENT ENGINEERING BRANCH
G. B. Williams, Chief Engineer
HIGHWAYS DIVISION

TABLE 1
TRANS-CANADA HIGHWAY IN BANFF NATIONAL PARK
CONTRACT STATEMENT TO MARCH 31, 1960
(a) *Contracts Continuing From 1958-59*

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Banff National Park.....	48.2-50.6	Construction of Canadian Pacific Railway Overpasses	Nov. 18, 1957	Contract completed Nov., 1959
Banff National Park.....	0.0-51.0	Crushed Bituminous Concrete Aggregates	Jan. 29, 1959	Contract completed Nov. 25, 1959
Banff National Park.....	10.7	Construction of rigid Frame Concrete Structure over Trans-Canada Highway	Jan. 9, 1959	Contract completed July 31, 1959

(b) *Contracts Awarded During 1959-60*

N I L

NOTE: Mileages measured from East Gate of Park.

TABLE 2
TRANS-CANADA HIGHWAY IN YOHO NATIONAL PARK
CONTRACT STATEMENT TO MARCH 31, 1960
(a) *Contracts Continuing From 1958-59*

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Yoho National Park.....	0.0-28.6	Crushed Bituminous Concrete Aggregates	Jan. 29, 1959	Contract completed Nov. 25, 1959
(b) <i>Contracts Awarded During 1959-60</i>				
NIL				

NOTE: Mileages measured from West Gate of Park.

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 3

TRANS-CANADA HIGHWAY IN GLACIER NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1960

(a) *Contracts Continuing from 1958-59*

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Glacier National Park.....	0.0- 6.0	Grading and Culverts	July 14, 1958	79% complete
Glacier National Park.....	6.0- 9.7	Grading and Culverts	July 31, 1958	63% complete
Glacier National Park.....	9.7-12.4	Grading and Culverts	Aug. 20, 1958	69% complete
Glacier National Park.....	12.4-18.7	Grading, Culverts and Construction of reinforced Concrete Arch Culvert Mi. 16.6 and Loop Cr. Br. Mi. 18.4	Sept. 26, 1958	Grading 40% complete Structure 60% complete
Glacier National Park.....	18.7-23.3	Grading, Culverts and Construction of Bridge at Cougar Cr. Mi. 19.5	Aug. 11, 1958	Grading 70% complete Bridge 95% complete
Glacier National Park.....	23.3-27.3	Grading, Culverts and Retaining Walls	Aug. 28, 1958	50% complete
Glacier National Park.....	18.7-18.5	Construction of Illecillewaet River Bridge No. 3, Canadian Pacific Railway Overpass	Dec. 4, 1958	75% complete
Glacier National Park.....	6.07	Construction of two-span bridge over Beaver River	Mar. 18, 1959	30% complete

(b) *Contracts Awarded During 1959-60*

Glacier National Park.....	27.1 and 26.4	Construction of Illecillewaet River Bridges Nos. 1 and 2	May 6, 1959	No. 1 60% complete No. 2 65% complete
Glacier National Park..... “	8.7	Concrete Tunnel Liners and Portals, Bear Creek Diversion Tunnel	Feb. 25, 1960	9% complete

NOTE: Mileages measured from East Boundary of Park.

TABLE 4
TRANSCANADA HIGHWAY IN REVELSTOKE NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1960

(a) *Contracts Continuing from 1958-59*

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Revelstoke National Park. . . .	0.0- 7.7	Grading, Culverts and Sub-Base	Aug. 20, 1958	82% complete
Revelstoke National Park. . . .	7.6	Construction of Concrete Arch Culvert over Glachnacudainn Creek	Feb. 4, 1959	Contract completed Dec. 15, 1959
Revelstoke National Park. . . .	0	Construction of Four-Span Bridge over Silver Creek	Jan. 29, 1959	Contract completed Oct. 31, 1959
Revelstoke National Park. . . .		Construction of Overpass Revelstoke National Park	Jan. 29, 1959	Contract completed Aug. 31, 1959

(b) *Contracts Awarded During 1959-60*

NIL

NOTE: Mileages Measured from East Boundary of Park.

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 5

TRANS-CANADA HIGHWAY IN TERRA NOVA NATIONAL PARK

CONTRACT STATEMENT TO MARCH 31, 1960

(a) *Contracts Continuing from 1958-59*

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Terra Nova National Park....	0.0-10.0	Grading, Culverts and Traffic Gravel	Sept. 17, 1957	Contract completed Oct. 14, 1959
Terra Nova National Park....	10.0-18.0	Grading, Culverts and Granular Base	May 9, 1957	Contract completed July 6, 1959
Terra Nova National Park....	13.4 and 18.4	Construction of Big Brook Bridge and Bread Cove Arch Culvert	Nov. 26, 1958	Contract completed Oct. 31, 1959
Terra Nova National Park....	23.3 and 21.3	Construction of Arch Culverts, Southwest Brook and Saltons Brook	Nov. 26, 1958	Contract completed July 11, 1959
Terra Nova National Park....	0.0-10.0	Crushing and Stockpiling Granular Base Course	Feb. 4, 1959	Contract completed Sept. 30, 1959
Terra Nova National Park....	10.1-25.3	Crushing and Stockpiling Granular Base Course	Feb. 3, 1959	Contract completed June 20, 1959

(b) *Contracts Awarded During 1959-60*

NIL

NOTE: Mileages Measured from West Boundary of Park.

TABLE 6

PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

(a) *National Parks—Contracts Continuing from 1953-59*

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Banff-Jasper Highway—Mileages measured from Lake Louise Junction				
Banff National Park.....	22.0-46.0	Base Course and Prime	Oct. 8, 1958	Contract completed Aug. 7, 1959
Banff National Park.....	46.0-58.0	Grading, Culverts and Construction of a reinforced Concrete Bridge over the Saskatchewan River	Aug. 20, 1958	Contract completed Nov. 30, 1959
Banff National Park.....	58.0-67.7	Grading, Culverts and Base Course	Aug. 20, 1958	Contract completed Nov. 30, 1959
Banff National Park.....	74.0-82.3	Grading, Culverts, Base Course and Road Mix	Oct. 31, 1958	30% complete

* Formerly known as Storms Contracting Co. Ltd.

(b) *Contracts Awarded during 1959-60*

Banff National Park.....	22.0-36.0	Bituminous Stabilized Base Course	May 7, 1959	Contract completed Oct. 20, 1959
Banff National Park.....	36.0-49.0	Bituminous Stabilized Base Course	May 5, 1959	Contract completed Oct. 14, 1959
Jasper National Park.....	85.8-96.7	Grading, Culverts, Base Course and Road Mix	May 5, 1959	65% complete
Jasper National Park.....	82.3-85.8	Grading, Culverts, Base Course and Road Mix	June 12, 1959	58% complete

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 6 (Continued)
PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS
AND NATIONAL RESOURCES—Continued
(a) National Parks—Contracts Continuing from 1958-59

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Banff-Windermere Highway—Mileages measured from Eisenhower Junction				
Kootenay National Park.....	1.0- 9.5	Grading, Culverts and Base Course	Aug. 12, 1958	Contract completed Nov. 30, 1959
Kootenay National Park.....	9.5-18.0	Grading, Culverts and Base Course	Sept. 23, 1958	Contract completed Nov. 1, 1959
(b) Contracts Awarded During 1959-60				
Kootenay National Park.....	18.0-32.0	Bituminous Stabilized Base Course	Apr. 13, 1959	Contract completed Sept. 30, 1959
(a) Contracts Continuing from 1958-59				
Yoho National Park.....	0.0- 5.0	Grading, Culverts and Base Course —Emerald Lake Access Road	Sept. 24, 1958	68% completed
(b) Contracts Awarded during 1959-60				
N I L				
(a) Contracts Continuing from 1958-59				
Yoho National Park.....	—	Construction of Kicking Horse River Bridge and approaches on the Yoho Valley Access Road, also the removal of rock bluff at the junction of T.C.H. and Banff-Jasper Highway	Oct. 8, 1958	Contract completed Aug. 30, 1959

(b) *Contracts Awarded during 1959-60*

Yoho National Park.....	N I L			
(a) <i>Contracts Continuing from 1958-59</i>				
Banff National Park.....	Banff Townsite	Reconstruction of Banff Avenue	Sept. 9, 1958	Contract completed Aug. 1, 1959
(b) <i>Contracts Awarded during 1959-60</i>				
N I L				
(a) <i>Contracts Continuing from 1958-59</i>				
Signal Hill.....	—	Erection of Guide Rail on Access Road	Oct. 31, 1958	Contract completed June 30, 1959
(b) <i>Contracts Awarded during 1959-60</i>				
N I L				
(a) <i>Contracts Continuing from 1958-59</i>				
Cape Breton Highlands National Park	15-21 & 22.5-23.5	Grading, Culverts and Base Course	Sept. 9, 1958	Contract completed Oct. 10, 1959
(b) <i>Contracts Awarded during 1959-60</i>				
Cape Breton Highlands National Park	23.5-29.5	Grading, Culverts, Retaining Walls and Base Course	June 17, 1959	48% complete

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 6 (Continued)

PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS
AND NATIONAL RESOURCES—Continued

(a) National Parks—Contracts Continuing from 1958-59

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
Prince Edward Island.....	12.47-20.15	Grading, Culverts, Base Course and Paving between Rustico Harbour and New London Camp grounds	July 24, 1958	60% complete
Prince Edward Island.....	7.45-11.67	Grading, Culverts and Stabilized Base Course between Brackley Point and West end of Rustico Island	Sept. 9, 1958	75% complete

(b) Contracts Awarded During 1959-60

Prince Edward Island.....	—	Paving from Dalway to Brackley Point Road	Oct. 1, 1959	No progress
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(b) Contracts Awarded During 1959-60

Fundy National Park.....	—	Grading, Base Course Surfacing and Seal Coat Point Wolf and Herring Cove Roads	Aug. 8, 1959	40% complete
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(a) Northwest Territories—Contracts Continuing from 1958-59

Northwest Territories.....	0-20 Measured from Yellowknife	Grading and Culverts, Yellowknife-Fort Rae	Mar. 26, 1957	Contract completed Aug. 17, 1959
Northwest Territories.....	20-58 Measured from Yellowknife	Grading, Culverts and Crushed Rock Surfacing Yellowknife-Fort Rae	May 14, 1958	90% complete

(a) Northwest Territories—Contracts Continuing from 1958-59

Northwest Territories.	0-20 Measured from Yellowknife	Crushed Rock Surfacing	Dec. 17, 1958	Contract completed Sept. 30, 1959
Northwest Territories.	31-83 Measured from Fort Providence	Grading and Traffic Gravel	Mar. 11, 1959	59% complete
Northwest Territories.	83-136.2 Measured from Fort Providence	Grading and Traffic Gravel	Mar. 18, 1959	64% complete

(b) Contracts Awarded during 1959-60

Northwest Territories.	136.2	Construct 4-Span Steel Bridge over Franks Channel	May 7, 1959	4% complete
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(a) Contracts Continuing from 1958-59

Northwest Territories.	0.0-22.7	Grading, Culverts and Crushed Rock Surfacing—Fort Fitzgerald to Bell Rock	Jan. 9, 1959	Contract completed Oct. 1, 1959
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(b) Contracts Awarded during 1959-60

N I L

(a) Wood Buffalo National Park—Contracts Continuing from 1958-59

Wood Buffalo National Park	0.0-75.0	Clearing from Peace Point to West Boundary of Wood Buffalo National Park	Dec. 17, 1958	91% complete
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DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 6 (Concluded)
PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS
AND NATIONAL RESOURCES—Concluded

Location	Mileage	Type of Contract	Date Contract Awarded	Progress
(b) <i>Contracts Awarded during 1959-60</i>				
NIL				
(a) <i>Yukon Territory—Contracts continuing from 1958-59</i>				
Yukon Territory.....	—	Construction of Tatchum River Bridge	May 26, 1958	Contract completed Aug. 20, 1959
Yukon Territory.....	—	Construction of Yukon River Bridge at Carmacks	June 6, 1958	99% complete
(b) <i>Contracts Awarded during 1959-60</i>				
Yukon Territory.....	—	Construction of Bridges over the Stewart & Pelly Rivers	June 18, 1959	Stewart 76% complete Pelly 88% complete
(a) <i>Contracts Continuing from 1958-59</i>				
Yukon Territory.....	0.0-45.0	Clearing on Flat Creek-Eagle Plain Road	Dec. 10, 1958	Terminated at Mile 39 Oct. 31, 1959
Yukon Territory.....	—	Erection of Bailey Bridges over the Klondike River and Yukon Consolidated Mining Corporation Intake Ditch	Dec. 8, 1958	Contract completed April 30, 1959

(b) *Contracts Awarded during 1959-60*

Yukon Territory	30.0-50.0	Grading and Culverts	Feb. 23, 1960	No progress
Yukon Territory	0.0-30.0	Grading and Culverts	Mar. 20, 1959	Contract completed Oct. 1959

TABLE 7

SPECIAL PROJECTS

(a) *Contracts Continuing from 1958-59*

Regina, Sask.	—	Paving, Drainage, etc. R.C.M.P. Barracks	July 31, 1958	Contract completed, Sept. 30, 1959
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(b) *Contracts Awarded during 1959-60*

Emerson, Manitoba	—	Paving, Customs and Immigration Terminal	May 27, 1959	Contract completed Aug. 23, 1959
North Portal, Sask.	—	Paving, Customs and Immigration Terminal	May 27, 1959	Contract completed Aug. 29, 1959
Nanaimo, B.C.	—	Grade, Paving and Landscape Roadway and Parking Areas Indian Hospital	Aug. 19, 1959	Contract completed Oct. 13, 1959
Dartmouth, N.S.	—	Construction Access Road Security Fence and Watermain for Oceanographic and Hydrographic Research Station	Jan. 7, 1960	65% complete
Regina, Sask.	—	Construct Sewage Pumphouse, R.C.M.P. Barracks	Feb. 9, 1960	29% complete

DEVELOPMENT ENGINEERING BRANCH—Concluded

TABLE 8

BRIDGE CONTRACT STATEMENT TO MARCH 31, 1960

Location	Type of Structure	Date Awarded	Progress
Carmacks, Y.T.	Steel Truss Highway Bridge	May 29, 1958	100% complete
Burlington Canal	Substructure, Lift Bridge	Oct. 2, 1958	88% complete
Burlington Canal	Superstructure Steel Lift Bridge	Feb. 26, 1959	3% complete
Cross Point, P.Q.-Campbellton, N.B.	New Brunswick Causeway	May 21, 1958	100% complete
Interprovincial Bridge			
Cross Point, P.Q.-Campbellton, N.B.	Substructure	Dec. 17, 1958	95% complete
Interprovincial Bridge			
Cross Point, P.Q.-Campbellton, N.B.	Superstructure	July 9, 1959	10% complete
Interprovincial Bridge			
Franks Channel, N.W.T.	Steel Bridge, Concrete Deck	May 7, 1959	10% complete
Stewart River, N.W.T.	Steel Truss Bridge	Mar. 31, 1959	80% complete
Pelly River, Y.T.	Steel Truss Bridge	Mar. 31, 1959	80% complete

TABLE 9

BRIDGES AND OTHER STRUCTURAL WORK DESIGNED DURING
FISCAL YEAR 1959-60

<i>(a) For Trans-Canada Highway in National Parks</i>	
Bear Creek Diversion Tunnel Liner.....	Glacier
Snow Sheds.....	Glacier
<i>(b) For Department of Northern Affairs and National Resources</i>	
*Rustico Harbour.....	Prince Edward Island
Grande Anse.....	Cape Breton
Nigel Creek Bridge.....	Banff
*Miette River Bridge.....	Jasper
Fiddle River Bridge.....	Jasper
Conifer Creek Bridge.....	Jasper
Muhigan Creek Bridge.....	Jasper
Snaring River Bridge.....	Jasper
Rocky River Bridge.....	Jasper
Sinclair Creek Culverts.....	Kootenay
Yellowknife River Bridge.....	North West Territories
Cameron River Mi. 13.3 Bridge.....	North West Territories
Cameron River Mi. 40.8 Bridge.....	North West Territories
Ogilvie Bridge, Klondike River.....	Yukon Territory
<i>(c) Miscellaneous</i>	
Structural frame—Window Testing.....	Ottawa
Laurier Ave. Bridge, Ottawa.....	Ottawa
Rideau River Crossing, Hogs Back.....	Ottawa
Ottawa-Hull Bridge Preliminary Scheme.....	Ottawa
Perley Bridge, Alterations.....	Hawkesbury
Standard Detail Drawings.....	Ottawa
Northumberland Strait Causeway Preliminary Design.....	New Brunswick
	Prince Edward Island
Rideau River Crossing, Heron Road.....	Ottawa
Chaudiere Bridge, Bearings.....	Ottawa

NOTE

*Design on these projects was started in 1958-59 fiscal year and continued in 1959-60.

TABLE 10

TRANS-CANADA HIGHWAY PROVINCIAL BRIDGES 1959-60
CHECKED AND APPROVED FOR SCHEDULE "B"

Newfoundland.....	5
Nova Scotia.....	7
Prince Edward Island.....	0
New Brunswick.....	10
Ontario.....	24
Manitoba.....	5
Saskatchewan.....	0
Alberta.....	4
British Columbia.....	61
	<hr/> 116

Roads to Resources 1959-60

Checked and approved

Nova Scotia.....	2
Prince Edward Island.....	1
New Brunswick.....	4
Manitoba.....	1
Saskatchewan.....	21
Alberta.....	2
	<hr/> 31
Miscellaneous.....	1

TABLE 11

TESTING LABORATORIES DIVISION
QUANTITY OF EACH TYPE OF MATERIAL RECEIVED

Material	Samples Received	
	Total	Sub-Total
Concrete Aggregates.....	401	
Concrete Test Specimens.....	3,925	
Concrete Products.....	66	
Cement.....	116	
Ceramic Materials.....	203	
Rock.....	127	
Metal.....	70	
Aluminum Windows.....	40	
Miscellaneous.....	125	
Sub-Total—Physical Section.....	5,073	5,073
Soils (Foundation Material).....	1,463	
Sub-Total—Soils Section.....		1,463
Creosote Oils.....	355	
Protective Coatings.....	674	
Petroleum Products.....	275	
Soaps and Detergents.....	132	
Waxes and Polishes.....	91	
Water.....	48	
Office Supplies.....	331	
Paper.....	73	
Sweeping Compounds.....	21	
Cement.....	31	
Miscellaneous.....	442	
Sub-Total—CHEMICAL SECTION.....	2,473	2,473
TOTAL.....	9,009	9,009
Creosote Reports Reviewed.....	1,252	1,252
GRAND TOTAL (Samples and Reports).....	10,261	10,261

TABLE 12

TESTING LABORATORIES DIVISION
SOURCE OF SAMPLES RECEIVED AND QUANTITY FROM EACH SOURCE

Source	Samples Tested	
	Total	Sub-Total
Department of Public Works—		
Harbours and Rivers Branch.....	1,881	
Building Construction Branch.....	4,048	
Purchasing and Stores Branch.....	380	
Property and Building Management Branch.....	54	
Development Engineering Branch.....	662	
TOTAL FOR PUBLIC WORKS.....		7,025
Department of Public Printing and Stationery.....	351	
St. Lawrence Seaway.....	4	
Department of Transport.....	353	
Department of National Defence.....	252	
Department of Justice.....	256	
Central Mortgage & Housing Corporation.....	363	
Other Sources.....	405	
TOTAL FOR OTHER SOURCES.....		1,984
TOTAL.....	9,009	9,009

BUILDING CONSTRUCTION BRANCH

E. A. Gardner, Chief Architect

NOTE: Projects described in previous reports with the exception of those indicated as still 'in progress' are completed.

Province	Location	Type of Building	Date Contract Awarded	Details
Newfoundland	Botwood	Federal Building	Nov. 1959	New building to accommodate Post Office Department. In progress.
	Harbour Grace	Federal Building	Mar. 1960	New building to accommodate Post Office, National Revenue, Fisheries and Telegraphs. In progress.
	Marystown	Federal Building	Apr. 1959	New building to accommodate Post Office, Fisheries and Public Works. Completed October, 1959.
	Newton	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	Port au Port	Post Office Building	April 1959	New building to accommodate Post Office Department. Completed September, 1959.
	St. John's	Sir Humphrey Gilbert Bldg.	Mar. 1960	Addition and alterations to building (Customs). In progress.
	St. John's	Sir Humphrey Gilbert Bldg.	Nov. 1959	Alterations and improvements (Customs). Completed February, 1960.
<p><i>The following projects described in previous reports are still in progress:</i></p> <p>St. John's (Customs Building)—St. John's (Federal Building)—Channel (R.C.M.P. Detachment Building)—Stephenville (Federal Building).</p>				
Prince Edward Island	Bloomfield Station	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	Borden	Inspection Office	Mar. 1960	New building to accommodate the Department of Agriculture. In progress.
Nova Scotia	Souris East	Federal Building	April 1959	New building to accommodate Post Office, Agriculture, Fisheries and Public Works. In progress.
	Antigonish	Detachment Quarters	Nov. 1959	New building to accommodate R.C.M.P. In progress.
	Berwick	Federal Building	Sept. 1959	Addition and alterations to accommodate Post Office Department. Completed December, 1959.
	Brookfield	Post Office Building	Mar. 1960	New building to accommodate Post Office Department. In progress.
	Clark's Harbour	Post Office Building	Mar. 1960	New building to accommodate Post Office and Fisheries. In progress.
	Dartmouth	Federal Building	Mar. 1960	New building to accommodate Department of Transport and Unemployment Insurance Commission. In progress.

Dartmouth	Shops Building	Mar. 1960	New building to accommodate Department of Transport. In progress.
Florence	Post Office Building	July 1959	New building to accommodate Post Office Department. Completed during November, 1959.
Glace Bay	Federal Building	Nov. 1959	New building to accommodate Post Office, Fisheries, and Unemployment Insurance Commission. In progress.
Guysborough	Detachment Quarters	April 1959	New building to accommodate the R.C.M.P. Completed October, 1959.
Halifax	Campbell Hospital	Feb. 1960	Addition to the Admission and Discharge section to accommodate the Department of Veterans Affairs. In progress.
Halifax	Division Garage	June 1959	New garage to accommodate the R.C.M.P. Completed January, 1960.
Halifax	Ralston Building	June 1959	Alterations and improvements to accommodate Food and Drug Laboratory for National Health and Welfare. In progress.
Louisbourg	Fisheries Building	June 1959	New building to accommodate the Department of Fisheries. Completed September, 1959.
New Germany	Post Office Building	Oct. 1959	New building to accommodate the Post Office Department. Completed March, 1960.
Shelburne	Detachment Quarters	Nov. 1959	New building to accommodate R.C.M.P. In progress.
Sydney	Federal Building	Jan. 1960	New passenger elevator and miscellaneous alterations. In progress.
Stewiacke	Detachment Quarters	July 1959	Alterations to mechanical installation. Completed October, 1959.
St. Peters	Detachment Quarters	Aug. 1959	New building to accommodate the R.C.M.P. Completed March, 1960.
Tatamagouche	Detachment Quarters	Sept. 1959	New Building to accommodate R.C.M.P. Completed March, 1960.
New Brunswick	Federal Building	Dec. 1959	New building to accommodate Post Office and Fisheries Departments. In progress.
	Detachment Quarters	May 1959	New building to accommodate R.C.M.P. Completed October, 1959.
	Post Office Building	Dec. 1959	New building to accommodate the Post Office Department. In progress.
	R.C.M.P. Headquarters	Feb. 1960	Improvements and alterations to staircases. In progress.
	Science Service Laboratory	Nov. 1959	Extension to drainage, paving, etc. In progress.
	Dominion Experimental Farm	Aug. 1959	New water system. In progress.
	Detachment Quarters	Nov. 1959	New building to accommodate the R.C.M.P. In progress.
	Detachment Quarters	Oct. 1959	New building to accommodate the R.C.M.P. Completed March, 1960.
	Post Office Building	Nov. 1959	New building to accommodate Post Office Department. Completed March, 1960.
	Post Office Building	Nov. 1959	New Building to accommodate the Post Office Department. Completed March, 1960.

BUILDING CONSTRUCTION BRANCH—Continued

Province	Location	Type of Building	Date Contract Awarded	Details
<i>The following projects described in previous reports are still in progress:</i>				
Campbellton	(Federal Building)—Fredericton (Agricultural Research Laboratory)—Grand Falls (Federal Building)—Moncton (Married Quarters R.C.M.P.)			
Quebec	Actonville	Federal Building	Dec. 1959	Extension to the existing building to accommodate Post Office. In progress.
	Ayer's Cliff	Post Office Building	Jan. 1960	New building to accommodate Post Office Department. In progress.
	Baie St-Paul	Federal Building	Mar. 1960	Addition to existing building to accommodate Post Office and Public Works. In progress.
	Charny	Post Office Building	July 1959	New building to accommodate Post Office Department. Completed January, 1960.
	Chicoutimi	Detachment Quarters	July 1959	New building to accommodate the R.C.M.P. Completed January, 1960.
	Chapais	Post Office Building	April 1959	New building to accommodate Post Office Department. Completed November, 1959.
	Fort George	School Teacherage and Residence	June 1959	Three new buildings to accommodate the Department of Citizenship and Immigration. In progress.
	Grande-Rivière	Post Office Building	Feb. 1960	New building to accommodate the Post Office Department. The work is in progress.
	Hull	National Printing Bureau	April 1959	Improvements to mechanical equipment and air-conditioning system. Completed March, 1960
	Loretteville	Federal Building	Nov. 1959	New building to accommodate the Post Office Department. In progress.
	Le Bic	Post Office Building	Jan. 1960	New building to accommodate the Post Office Department. In progress.
	Montreal	Trade and Commerce Building	April 1959	New building to accommodate the Department of Trade and Commerce. In progress.
	Montreal	National Film Board Vault Building	June 1959	Supply and installation of film storage racks. Completed October, 1959.
	Montreal	Letter Carrier Depot Cote St. Luc	Nov. 1959	New building to accommodate Post Office Department. In progress.
	Manouan	School and Duplex Buildings	Feb. 1960	Two new buildings to accommodate the Department of Citizenship and Immigration. In progress.
	Murdochville	Post Office Building	July 1959	New building to accommodate Post Office Department. Completed December, 1959.
	Macamic	Post Office Building	Dec. 1959	New building to accommodate the Post Office Department. In progress.
	Pointe-Bleue	Indian Residential School	Oct. 1959	New building to accommodate the Department of Citizenship and Immigration. In progress.
	Price	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.

Quebec (Concluded)	Riverbend	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	Sutton	Federal Building	Nov. 1959	New building to accommodate Departments of Agriculture and Citizenship and Immigration. In progress.
	Stanstead	Detachment Quarters	Dec. 1959	New building to accommodate R.C.M.P. In progress.
	Sawyerville	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. In progress.
	St-Anselme	Post Office Building	Sept. 1959	New building to accommodate Post Office Department. Completed December, 1959.
	St-Jacques-de-Montcalm	Federal Building	Nov. 1959	Addition to existing building to accommodate Post Office Department. In progress.
	Ste-Anne-de-la-Pocatière	Header House	Mar. 1960	New building at Experimental Farm to accommodate Department of Agriculture. In progress.
	Ste-Anne-de-Bellevue	Laundry Building (Hospital)	Dec. 1959	New laundry building to accommodate Department of Veterans Affairs. In progress.
	Ste-Félicité	Post Office Building	Jan. 1960	New building to accommodate Post Office Department. In progress.
	St-Grégoire-de-Nicolet	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	St-Maxime-de-Scott	Post Office Building	Mar. 1960	New building to accommodate Post Office Department. In progress.
	St-Pamphile	Post Office Building	Mar. 1960	New building to accommodate Post Office Department. In progress.

The following projects described in previous reports are still in progress:
Pointe-Bleue (School and Dormitory)—Shawinigan (Federal Building).

Ottawa, Ont.	Booth Street	Parking Area	May 1959	Parking area including grading, etc. Completed November, 1959.
	Central Experimental Farm	Photo Zenith Telescope Building	June 1959	New building to accommodate Department of Mines and Technical Surveys. Completed January, 1960.
	Central Experimental Farm	Magnetometer Laboratory Building	June 1959	New building to accommodate Department of Mines and Technical Surveys. Completed December, 1959.
	Central Experimental Farm	General Service Garage	July 1959	New building to accommodate Department of Agriculture. Completed January, 1960.
	Central Experimental Farm	Plant Growth Building	Aug. 1959	New building to accommodate Department of Agriculture. In progress.
	Central Experimental Farm	Plant Products Laboratory	Mar. 1960	Alterations and improvements to existing building. In progress.
	Jackson Building	Federal Building	July 1959	Improvements to lighting, partitioning, etc. In progress.
	Jackson Building	Federal Building	Oct. 1959	Improvements to plumbing, fire protection, etc. Completed March, 1960.

BUILDING CONSTRUCTION BRANCH—Continued

Province	Location	Type of Building	Date Contract Awarded	Details
Ottawa, Ont. (Concluded)	Langevin Block	Federal Building	Mar. 1960	New stairs and elevator in existing building. In progress.
	Major's Hill Park	Artillery Memorial	June 1959	New memorial for Department of National Defence. Completed November, 1959.
	Montreal Road	Applied Chemistry Building	July 1959	Extension to accommodate National Research Council. In progress.
	Riverside Drive	Pump House	July 1959	New pump house to serve public buildings and laboratories at Riverside Drive Development. In progress.
	Riverside Drive	Laboratory and Workshop Building	July 1959	New building to accommodate Post Office Department. In progress.
	Riverside Drive	Riverside Drive Development	Oct. 1959	Construction of sewers, roads, parking, etc. at Riverside Drive Development. In progress.
	Riverside Drive	Cafeteria Building	Dec. 1959	New cafeteria at Riverside Drive Development. In progress.
	Rideau Hall	Rideau Hall	Mar. 1960	Supply and installation of a new elevator. In progress.
	Tunney's Pasture	Hygiene Laboratory	July 1959	Provision of storm sewers, roads, sidewalks, etc. Completed March, 1960.
	Tunney's Pasture	Testing Laboratory	Aug. 1959	Alterations and improvements to existing building. Completed February, 1960.
	Tunney's Pasture	Bureau of Statistics	Jan. 1960	Installation of electronic data processing machines, etc. for Department of Trade and Commerce. In progress.
	Tunney's Pasture	Finance Building	Jan. 1960	Construction of interior partitions, etc. In progress.
	Tunney's Pasture	Bureau of Statistics	Feb. 1960	Addition and alterations to accommodate Department of Trade and Commerce. The work is in progress.
	No. 8 Temporary Building	Federal Building	Feb. 1960	Alterations and improvements to existing building. In progress.

The following projects described in previous reports are still in progress:

Riverside Drive (Sir Charles Tupper Building) indicated as Public Works Building—(Post Office Buildings)—(Communication Building)—Tunney's Pasture (No. 2 Finance Building). Booth Street—(Surveys and Mapping Building)—Riverside Drive—(Central Heating Plant—Mechanical)

Ontario	Cookstown	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	Casselman	Post Office Building	Feb. 1960	New building to accommodate the Post Office Department. In progress.
	Dundas	Federal Building	Mar. 1960	Addition to existing building for Post Office Department. In progress.

Elliott Lake	Federal Building	Oct. 1959	New building to accommodate Post Office and Agriculture and Unemployment Insurance Commission. In progress.
Ear Falls	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
Goderich	Federal Building	July 1959	New building to accommodate Post Office Department. In progress.
Guelph	Insecticide and Garage Buildings	Jan. 1960	New building to accommodate Post Office, Citizenship and Immigration, Public Works and Unemployment Insurance Commission. In progress.
Kitchener	Detachment Quarters	July 1959	New building and garage to accommodate Department of Agriculture. In progress.
Kapuskasing	Header House Experimental Farm	Jan. 1960	New building to accommodate R.C.M.P. Completed March, 1960.
Kenora	Single Residence	Oct. 1959	New building to accommodate Department of Agriculture. In progress.
Listowel	Federal Building	May 1959	New residence to accommodate Department of Citizenship and Immigration. Completed March, 1960.
Lanark	Post Office Building	Dec. 1959	Addition to the existing building. Completed March, 1960.
London	Westminster Hospital	Feb. 1960	New building to accommodate Post Office Department. In progress.
Morrisburg	Federal Building	June 1959	New wing to the existing hospital to accommodate Department of Veterans Affairs. The work is in progress.
Moose Factory	Sewage Plant	Nov. 1959	New building to accommodate Post Office Department. In progress.
Moose Factory	Double Residences	Dec. 1959	New sewage treatment plant to serve existing buildings for Department of Citizenship and Immigration. In progress.
North Gower	Post Office Building	Dec. 1959	Three double residences to accommodate employees of Department of National Health and Welfare. In progress.
Niagara Falls	U.I.C. Building	Mar. 1960	New building to accommodate Post Office Department. In progress.
Oshawa	U.I.C. Building	April 1959	New building to accommodate the Unemployment Insurance Commission. The work is in progress.
Orleans	Post Office Building	Mar. 1960	New building to accommodate Unemployment Insurance Commission. Completed January, 1960.
Preston	Federal Building	April 1959	New building to accommodate Post Office Department. In progress.
Paris	Federal Building	May 1959	New building to accommodate Post Office and Public Works Departments. The work was completed during March 1960.
Port Rowan	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. Completed March, 1960.
Richmond Hill	Federal Building	July 1959	New building to accommodate Post Office Department. In progress.
Spencerville	Post Office Building	July 1959	New building to accommodate Post Office and Public Works Departments. In progress. Department New building to accommodate Post Office Department. Completed January, 1960.

BUILDING CONSTRUCTION BRANCH—Continued

Province	Location	Type of Building	Date Contract Awarded	Details
Ontario (Concluded)	Sioux Lookout	Residence	Sept. 1959	New three-bedroom staff unit to accommodate Department of Citizenship and Immigration. Completed March, 1960.
	Stoney Creek	Post Office Building	Nov. 1959	New building to accommodate Post Office Department. In progress.
	Stevensville	Post Office Building	Feb. 1960	New building to accommodate the Post Office Department. The work is in progress.
	South Woodlee	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. The work is in progress.
	Toronto	Tamblyn Building	Aug. 1959	Alterations and improvements to second and third floors. Completed February, 1960.
	Toronto	Postal Station "Q"	Feb. 1960	Improvements to elevator control system. In progress.
	Toronto Virgil	Postal Station "R" Post Office Building	Feb. 1960 Feb. 1960	Alterations to postal accommodation. In progress. New building to accommodate Post Office Department. In progress.
<i>The following projects described in previous reports are still in progress:</i>				
Rexdale (Post Office)—Timmins (Federal Building)—Toronto (Postal Station "Q")—Windsor (Federal Building).				
Manitoba	Birtle	Residences	Aug. 1959	New duplex residence and single residence to accommodate Department of Citizenship and Immigration. Completed March, 1960.
	Dauphin	Detachment Quarters	April 1959	New building to accommodate the R.C.M.P. Completed November, 1959.
	Dominion City	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. Completed March, 1960.
	Emerson	Federal Building	April 1959	New building to accommodate National Revenue Department (Customs) and Department of Citizenship and Immigration. Completed October, 1959.
	Ethelbert	Detachment Quarters	Oct. 1959	New building to accommodate the R.C.M.P. In progress.
	Fisher Branch.	Post Office Building	Mar. 1960	New building to accommodate the Post Office Department. The work is in progress.
	Hartney	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	Inglis	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. In progress.
	Lake Manitoba	School and Residence	Aug. 1959	New school building and residence for Department of Citizenship and Immigration. In progress.

Lynn Lake	Nursing Station and Garage	Nov. 1959	New building and garage to accommodate Department of National Health and Welfare. In progress.
Lundar	Detachment Quarters	Nov. 1959	New building to accommodate R.C.M.P. In progress.
Melita	Detachment Quarters	May 1959	New building to accommodate R.C.M.P. Completed November, 1959.
Miami	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. In progress.
Morris	Detachment Quarters	Dec. 1959	New building to accommodate R.C.M.P. In progress.
Norway House	Nurses Residence and Shop	Oct. 1959	Two new buildings to accommodate the Department of National Health and Welfare. In progress.
Portage La Prairie	Duplex Residence	Sept. 1959	New building to accommodate Department of Citizenship and Immigration. Completed February, 1960.
Pine Creek	Duplex Residence	Feb. 1960	New building to accommodate the Department of Citizenship and Immigration. In progress.
Pukatawagan	School Residence Teacher-age Buildings, etc.	Mar. 1960	Four new buildings to accommodate the Departments of Citizenship and Immigration and National Health and Welfare. In progress.
Rosburn	Detachment Quarters	Sept. 1959	New building to accommodate R.C.M.P. Completed March, 1960.
Sandy Bay	Triplex Residence	Dec. 1959	New building to accommodate Department of Citizenship and Immigration. In progress.
Winnipegosis	Post Office Building	July 1959	New building to accommodate Post Office Department. Completed November, 1959.
Winnipeg	Customs Examining Warehouse	Aug. 1959	Alterations and improvements to freight elevator etc. In progress.
Winnipeg	Post Office Building	Jan. 1960	Provision and installation of mail handling equipment for conveyor No. 43. In progress.
Winnipeg	Science Service Laboratory	Feb. 1960	Addition to existing building to accommodate Department of Agriculture. In progress.
Winnipeg	U.I.C. Building	Mar. 1960	New building to accommodate Unemployment Insurance Commission. In progress.
Winnipeg	Federal Building	Mar. 1960	Alterations and renovations to the second floor of existing building. In progress.
Avonlea	Detachment Quarters	Aug. 1959	New building to accommodate R.C.M.P. Completed March, 1960.
Big River	Detachment Quarters	Nov. 1959	New building to accommodate R.C.M.P. In progress.
Central Butte	Post Office Building	April 1959	New building to accommodate Post Office Department. Completed August, 1959.
Craik	Detachment Quarters	Nov. 1959	New building to accommodate R.C.M.P. In progress.
Carnduff	Detachment Quarters	Jan. 1960	New building to accommodate the R.C.M.P. In progress.
Gordon	Warehouse and Residence	Dec. 1959	Two new buildings to accommodate Department of Citizenship and Immigration. In progress.
Kamsack	Detachment Quarters	Sept. 1959	New building to accommodate R.C.M.P. Completed March, 1960.

Saskatchewan

BUILDING CONSTRUCTION BRANCH—Continued

Province	Location	Type of Building	Date Contract Awarded	Details
Saskatchewan (Concluded)	Lloydminster	Detachment Quarters	May 1959	New building to accommodate R.C.M.P. Completed November, 1959.
	Muscowequan	Staff Residence	Dec. 1959	New building to accommodate Department of Citizenship and Immigration. In progress.
	Melfort	Headerhouse (Experimental Farm)	Feb. 1960	New building to accommodate Department of Agriculture. In progress.
	Naican	Detachment Quarters	April 1959	New building to accommodate R.C.M.P. Completed November, 1959.
	Neilburg	Post Office Building	Jan. 1960	New building to accommodate Post Office Department. In progress.
	Perdue	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. In progress.
	Regina	Superintendent's Residence	April 1959	New building to accommodate R.C.M.P. Completed January, 1960.
	Regina	Implement Shed	April 1959	New building for R.C.M.P. Completed September, 1959.
	Regina	R.C.M.P. Barracks	Nov. 1959	Installation of fire alarm and automatic sprinkler supervisory system. In progress.
	Radville	Barracks	May 1959	New building to accommodate the R.C.M.P. Completed during October, 1959.
	Rouleau	Post Office Building	Dec. 1959	New building to accommodate the Post Office Department. The work is in progress.
	Rose Valley	Detachment Quarters	Sept. 1959	New building to accommodate the R.C.M.P. Completed March, 1960.
	Saskatoon	Federal Building	Nov. 1959	New building to accommodate Post Office Department. In progress.
	Sheho	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. In progress.
	Shellbrook	Detachment Quarters	Dec. 1959	New building to accommodate R.C.M.P. The work is in progress.
	Southend	Residence and Powerhouse	Feb. 1960	Two new buildings to accommodate Department of Citizenship and Immigration. In progress.
	St. Philip's	Triplex Residence	Feb. 1960	Two new buildings to accommodate Department of Citizenship and Immigration. The work is in progress.
	Vonda	Detachment Quarters	Oct. 1959	New building to accommodate R.C.M.P. In progress.
	Vanguard	Post Office Building	Jan. 1960	New building to accommodate Post Office Department. In progress.
	Wapella	Post Office Building	April 1959	New building to accommodate the Post Office Department. Completed July, 1959.
	White Fox	Post Office Building	Mar. 1960	New building to accommodate Post Office Department. The work is in progress.

The following project described in previous reports is still in progress:

Moose Jaw (Federal Building).

Alix	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. Completed March, 1960.
Alexis	School and Teacherage Buildings	Dec. 1959	Addition and improvements to existing school building and teacherage buildings to accommodate Department of Citizenship and Immigration. In progress.
Barhead	Post Office Building	Oct. 1959	New building to accommodate Post Office Department. In progress.
Big Valley	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. Completed March, 1960.
Beiseker	Detachment Quarters	Dec. 1959	New building to accommodate R.C.M.P. In progress.
Canmore	Post Office Building	Mar. 1960	New building to accommodate Post Office Department. In progress.
Didsbury	Federal Building	Dec. 1959	New building to accommodate Post Office and Veterans Affairs Departments. In progress.
Edmonton	Charles Camshell Hospital	July 1959	Supply and erection of fire escape staircases to multiple dwellings for Citizenship and Immigration. Completed November, 1959.
Edmonton	Charles Camshell Hospital	Aug. 1959	Repairs to exterior brickwork. Completed October, 1959.
Edmonton	U.I.C. Building	Dec. 1959	New building to accommodate Unemployment Insurance Commission. In progress.
Innisfail	Detachment Quarters	July 1959	New building to accommodate the R.C.M.P. Completed February, 1960.
Lethbridge	Veterinary Workshop	Aug. 1959	New building to accommodate Department of Agriculture. Completed December, 1959.
Manyberries	Duplex Dwelling	Sept. 1959	New building to accommodate Department of Agriculture. Completed February, 1960.
Mannville	Post Office Building	Jan. 1960	New building to accommodate Post Office Department. In progress.
Medicine Hat	Federal Building	Mar. 1960	New building to accommodate various Government Departments. In progress.
Pincher Creek	Post Office Building	Nov. 1959	New building to accommodate Post Office Department. In progress.
Rocky Mountain House	Detachment Quarters	May 1959	New building to accommodate R.C.M.P. Completed November, 1958.
Rocky Mountain House	Federal Building	Feb. 1960	New building to accommodate Post Office and Citizenship and Immigration. In progress.
Redwater	Detachment Quarters	Aug. 1959	New building to accommodate R.C.M.P. Completed February, 1960.
St. Paul	Duplex Residence	Aug. 1959	New building to accommodate Department of Citizenship and Immigration. Completed March, 1960.
Two Hills	Detachment Quarters	Nov. 1959	New building to accommodate R.C.M.P. In progress.

The following project described in previous reports is still in progress:

Calgary (Postal Terminal).

BUILDING CONSTRUCTION BRANCH—Continued

Province	Location	Type of Building	Date Contract Awarded	Details
British Columbia	Alert Bay	Detachment Quarters	May 1959	New building to accommodate R.C.M.P. Completed October, 1959.
	Crescent Valley	Detachment Quarters	Sept. 1959	New building to accommodate R.C.M.P. Completed February, 1960.
	Gibson's Landing	Detachment Quarters	Aug. 1959	New building to accommodate R.C.M.P. Completed March, 1960.
	Hope	Federal Building	Feb. 1960	New building to accommodate Post Office and Transport Departments. In progress.
	Kamloops	Administration Building and Garage	Jan. 1960	Two new buildings to accommodate R.C.M.P. In progress.
	Kitimat	Federal Building	Mar. 1960	New building to accommodate various Government Departments. In progress.
	Lejac	Residence	July 1959	New building to accommodate Citizenship and Immigration. Completed January, 1960.
	Lillooet	Detachment Quarters	Dec. 1959	New building to accommodate R.C.M.P. In progress.
	Mission City	School and Auxiliary Buildings	Oct. 1959	New building to accommodate Citizenship and Immigration. In progress.
	McBride	Detachment Quarters	Oct. 1959	New building to accommodate the R.C.M.P. In progress.
	Nanaimo	Warehouse Building	Aug. 1959	New building to accommodate Department of Fisheries. Completed February, 1960.
	Nanaimo	Indian Hospital	Aug. 1959	New roofing and flooring. Completed February, 1960.
	Nakusp	Post Office Building	Dec. 1959	New building to accommodate Post Office Department. In progress.
	Nakusp	Detachment Quarters	Oct. 1959	New building to accommodate R.C.M.P. Completed March, 1960.
	Port Coquitlam	Federal Building	Mar. 1960	New building to accommodate Post Office and Veterans Affairs Departments. In progress.
	Revelstoke	Federal Building	Feb. 1960	Alterations to existing building. In progress.
	Shawnigan Lake	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	Saanichton	Post Office Building	Feb. 1960	New building to accommodate Post Office Department. In progress.
	Squamish	School Building	May 1959	New building to accommodate Department of Citizenship and Immigration. Completed January, 1960.

Sardis	Indian Hospital	June 1959	Improvements and replacement of boilers. Completed March, 1960.
Vancouver	Old Customs House	May 1959	Extensive alterations and improvements. Completed February, 1960.
Vancouver	Old Federal Building	July 1959	Extensive alterations and improvements. Completed March, 1960.
Vancouver	School (Capilano)	Sept. 1959	New building to accommodate Department of Citizenship and Immigration. Completed February, 1960.
Vancouver	Old Customs House	Dec. 1959	Alterations and improvements. Completed March, 1960.
Vancouver	Shaughnessy Hospital	Feb. 1960	Construction of a therapeutic pool, exercise room and extension to the out-patient section for Department of Veterans Affairs. In progress.
Vancouver Victoria	Old Customs House Workshop and Shed	Mar. 1960	Alterations to sub-basement. In progress.
Victoria	D.V.A. Hospital	July 1959	Two buildings for Department of Citizenship and Immigration. In progress.
Williams Lake	School and Garage (Cariboo)	Feb. 1960	Drainage for prosthetic services building. In progress.
Williams Lake	School and Powerhouse (Chilcotin)	July 1959	Two new buildings for Department of Citizenship and Immigration. Completed November, 1959.
		Oct. 1959	Two new buildings to accommodate the Departments of Citizenship and Immigration and National Health and Welfare. In progress.
Yukon and N.W.T.			
Carcross	Duplex Residence	June 1959	New building to accommodate Department of Citizenship and Immigration. Completed January, 1960.
Fort Simpson	Water and Sewer Services	June 1959	Supply and installation of water and sewer services to Government-owned residences. Completed March, 1960.
Fox Hall Lake	Frame Buildings and Nursing Station	July 1959	New nursing station and eight frame buildings to accommodate National Health and Welfare and Northern Affairs and National Resources. Completed November, 1959.
Fort Smith	Federal Housing	Aug. 1959	Ten double houses to accommodate Federal Government employees. Completed February, 1960.
Fort Smith	Single Staff Quarters	Oct. 1959	New building with twelve apartments to accommodate Federal Government employees. In progress.
Hay River	Teacherage Building	Jan. 1960	New building to accommodate Department of Citizenship and Immigration. In progress.
Inuvik	Various Buildings (Navy)	July 1959	Construction of various buildings to accommodate Department of National Defence (Navy). In progress.
Inuvik	Antenna and Transmitter Building	July 1959	New building to accommodate Department of National Defence. In progress.
Whitehorse	Hostels and Residences	April 1959	Two new hostels and two residences to accommodate Department of Citizenship and Immigration. In progress.

BUILDING CONSTRUCTION BRANCH—Concluded

Province	Location	Type of Building	Date Contract Awarded	Details
Yukon and N.W.T. (Concluded)	Whitehorse	Indian Hostels	April 1959	Provision of sewer and water services. In progress.
	Whitehorse	Garages for Federal Housing	April 1959	New garages for Federal Government employees. Completed January, 1960.
	Whitehorse	Double House	Aug. 1959	New building to accommodate R.C.M.P. Completed January, 1960.
	Whitehorse	Federal Housing	Dec. 1959	Construction of housing to accommodate Federal Government employees. In progress.
	Yellowknife	Federal Housing	Aug. 1959	Construction of housing to accommodate Federal government employees. In progress.
<p><i>The following projects described in previous reports are still in progress:</i></p> <p>Inuvik (Various Buildings)—Inuvik (Hospital Project).</p>				

REPORT OF THE TREASURY OFFICE

J. M. Wilkinson, Chief Treasury Officer

RECAPITULATION OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS OF CANADA DURING THE FISCAL YEAR ENDING 31 MARCH, 1960

	Dredging	Con- struction and Improve- ments	Repairs and Main- tenance	Staff and Sundries	Total
	\$	\$	\$	\$	\$
PUBLIC BUILDINGS—					
Outside of Canada.....		448,906	34,797	235,138	718,841
Newfoundland.....		1,131,642	91,171	620,342	1,843,154
Nova Scotia.....		854,418	133,369	1,052,581	2,040,368
Prince Edward Island.....		130,402	27,166	173,288	330,856
New Brunswick.....		673,917	140,766	911,178	1,725,861
Quebec.....		4,246,418	994,379	6,186,963	11,427,760
Ontario.....		30,981,483	3,071,424	21,401,550	55,454,458
Manitoba.....		957,444	241,497	1,467,708	2,666,649
Saskatchewan.....		1,064,465	201,524	1,154,197	2,420,186
Alberta.....		2,326,579	247,093	1,561,247	4,134,919
Yukon and Northwest Territories.....		2,898,666	92,395	613,401	3,604,462
British Columbia.....		1,508,763	422,537	2,930,296	4,861,596
Totals.....		47,223,103	5,698,118	38,307,889	91,229,110
HARBOURS AND RIVERS—					
Newfoundland.....	324,763	4,677,999	290,786	156,776	5,450,324
Nova Scotia.....	597,842	3,956,371	604,732	126,951	5,285,896
Prince Edward Island.....	293,540	905,500	111,640	436,655	1,747,335
New Brunswick.....	2,266,474	3,169,327	227,771	11,052	5,674,624
Quebec.....	1,053,356	6,574,116	989,413	330,923	8,947,808
Ontario.....	1,044,818	6,646,201	370,783	191,621	8,253,423
Manitoba.....	211,280	256,057	50,669	183,200	701,206
Saskatchewan.....			1,004		1,004
Alberta.....	254,615	97,161	10,424	22,444	384,644
Yukon and Northwest Territories.....	86,070	52,110	17,136	26,091	181,407
British Columbia.....	1,362,853	3,225,883	474,860	852,341	5,915,937
Totals.....	7,495,611	29,560,725	3,149,218	2,338,054	42,543,608
TRANS-CANADA HIGHWAY—					
Newfoundland.....		7,955,446			7,955,446
Nova Scotia.....		3,128,648			3,128,648
Prince Edward Island.....		1,173,286			1,173,286
New Brunswick.....		8,212,398			8,212,398
Quebec.....					
Ontario.....		18,436,104			18,436,104
Manitoba.....		1,724,710			1,724,710
Saskatchewan.....		32,770			32,770
Alberta.....		2,465,751			2,465,751
British Columbia.....		22,224,295			22,224,295
Totals.....		65,353,408			65,353,408
MISCELLANEOUS—					
Minister's Salary and Motor Car Allowance.....				17,000	17,000
General Administration.....				9,057,291	9,057,291
Fire Prevention.....				181,633	181,633
Testing Laboratories.....				735,253	735,253
Other.....				131,288	131,288
Total.....				10,122,465	10,122,465
Grand Totals.....	7,495,611	142,137,236	8,847,336	50,768,408	209,248,591

NOTE: Details of expenditures covering individual contracts may be found in the Public Accounts for 1959-1960.

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1959-60

Revenue received by the Department of Public Works of Canada during the
fiscal year ending March 31, 1960.

ORDINARY—

PUBLIC BUILDINGS

Rents from Public Buildings and related properties.....	\$ 1,157,241.46
Sales of old furniture, fittings and building material, etc.....	2,613.59
Sales of real estate.....	102,000.00
Water collections—William Head, B.C., pipe line.....	3,749.54
Commissions from telephone booths in public buildings.....	24,307.31
Refunds against expenditures of previous years.....	51,620.44
Professional Services for Atomic Energy, Chalk River, Ont.....	2,040.00
	<u>\$ 1,343,572.34</u>

ENGINEERING WORKS

Sales of real estate.....	\$ 154,281.32
Earnings of Dry Docks, etc.	
Champlain Dry Dock, Lauzon, Que.....	148,153.00
Lorne Dry Dock, Lauzon, Que.....	44,675.00
Selkirk, Man., Repair Slip.....	2,743.00
Esquimalt, B.C., New Dry Dock.....	160,472.55
	<u>\$ 510,324.87</u>

Revenue from leased works and plants—

Kingston, Ont., Dry Dock, rental.....	\$12,100.00
Ferry privileges.....	738.00
Earnings of dredges and plants.....	28,911.50
	<u>\$ 41,749.50</u>
Rents from water lots, etc.....	93,092.09
Refunds against expenditures of previous years.....	33,780.32
Sundry receipts.....	1,842.88
	<u>\$ 680,789.66</u>

MISCELLANEOUS

Damages to government property.....	\$ 3,246.58
Sundry receipts.....	254,128.75
	<u>\$ 257,375.33</u>

GENERAL SUMMARY

Public Buildings.....	\$ 1,343,572.34
Engineering Works.....	680,789.66
Miscellaneous.....	257,375.33
	<u>\$ 2,281,737.33</u>

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1959-60—Concluded

1959-60 REVENUE

The revenue for the year amounted to \$2,281,737.33 and is made up as follows:

Graving Docks.....	\$ 356,043.55	
Rents.....	1,291,345.05	
Casual Revenue.....	633,610.73	
Ferries.....	738.00	
		<u>\$ 2,281,737.33</u>

Breakdown of the above revenue as follows:

Graving Docks—Maintenance and Operation

Champlain Graving Dock.....	\$ 148,153.00
Lorne Graving Dock, Lauzon, Que.....	44,675.00
Selkirk, Man.—Repair Slip.....	2,743.00
Esquimalt, B.C.—Graving Dock.....	160,472.55
	<u>\$ 356,043.55</u>

Rents

Public Buildings.....	\$ 1,157,241.46
Water lots.....	93,092.09
Kingston Dry Dock.....	12,100.00
Earnings of the Dredges.....	28,911.50
	<u>\$ 1,291,345.05</u>

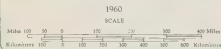
Casual Revenue

Sales of old furniture, etc.....	\$ 2,613.59
Sales of real estate.....	102,000.00
Water collections—William Head, B.C.....	3,749.54
Commissions from telephones in Public Buildings.....	24,307.31
Refunds against previous years' expenditures—Public Buildings...	51,620.44
Refunds against previous years' expenditures—Engineering.....	33,780.32
Sundry receipts—Engineering.....	1,842.88
Damages to government property.....	3,246.58
Sundry receipts—Miscellaneous.....	254,128.75
Sales of real estate—Engineering.....	154,281.32
Professional Services—Chalk River, Ont.....	2,040.00
	<u>\$ 633,610.73</u>

Ferries

Licence fees.....	\$ 738.00
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CANADA
DEPARTMENT OF PUBLIC WORKS
MAP SHOWING
CENTRES OF ACTIVITY

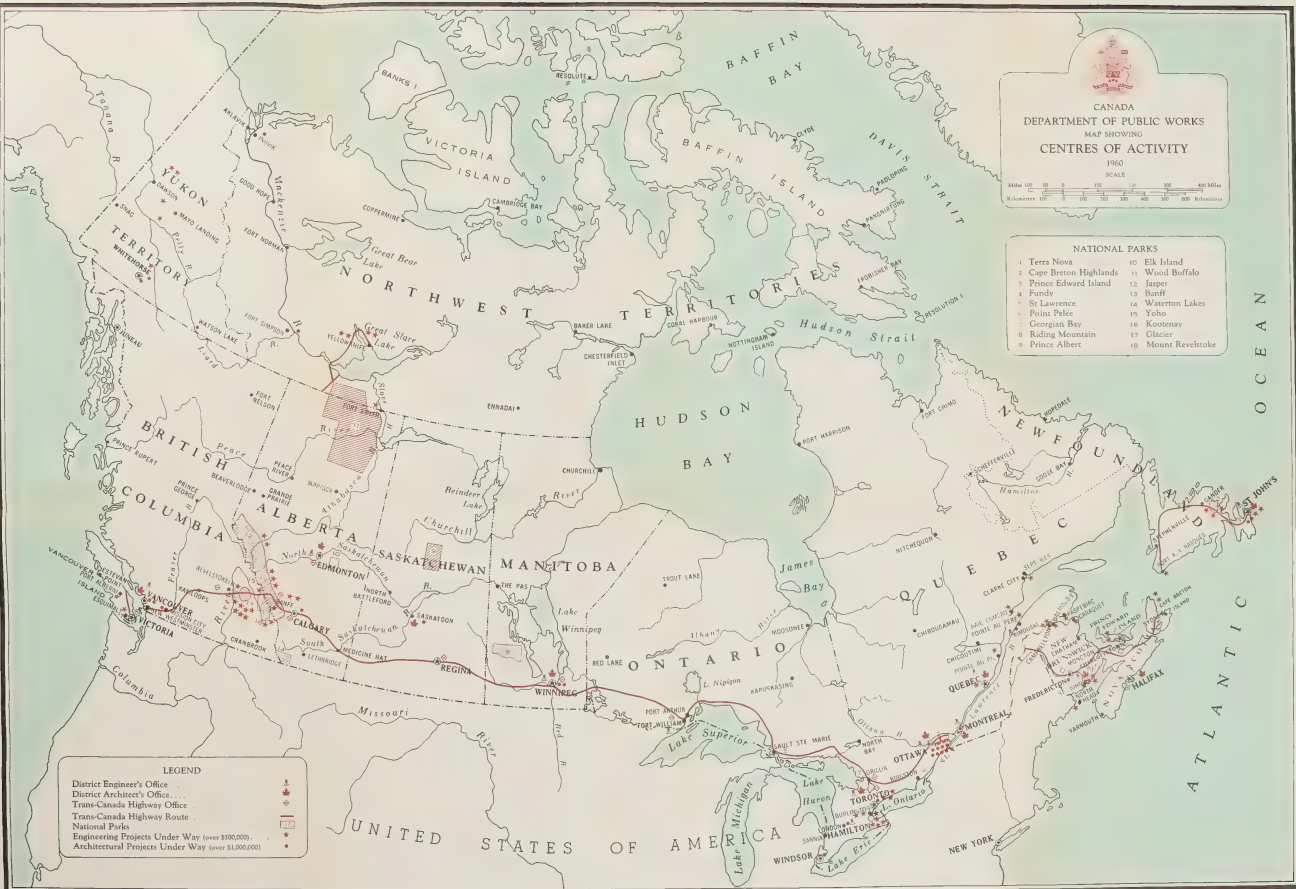


NATIONAL PARKS

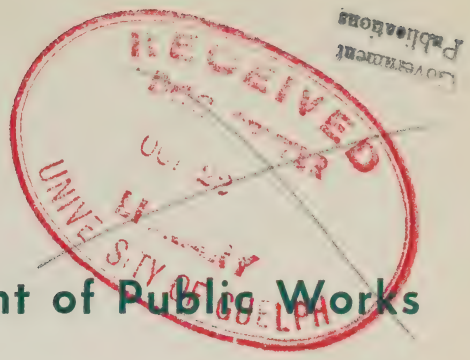
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|-------------------------|---------------------|
| 1 Terra Nova | 10 Elk Island |
| 2 Cape Breton Highlands | 11 Wood Buffalo |
| 3 Prince Edward Island | 12 Jasper |
| 4 Fundy | 13 Banff |
| 5 St. Lawrence | 14 Watkins Lakes |
| 6 Point Pelee | 15 Yoho |
| 7 Georgian Bay | 16 Kootenay |
| 8 Riding Mountain | 17 Glacier |
| 9 Prince Albert | 18 Mount Revelstoke |

LEGEND

- District Engineer's Office
- District Architect's Office
- Trans-Canada Highway Office
- Trans-Canada Highway Route
- National Parks
- Engineering Projects Under Way (over \$500,000)
- Architectural Projects Under Way (over \$1,000,000)



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Department of Public Works

ANNUAL REPORT

for the fiscal year ended March 31, **1961**



REPORT of the
DEPARTMENT of
PUBLIC WORKS

for the fiscal year
ended
MARCH 31,
1961



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To His Excellency Major-General Georges Vanier, D.S.O., M.C., C.D., Governor-General and Commander-in-Chief of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1961.

Respectfully submitted,
DAVID J. WALKER,
Minister of Public Works.

OTTAWA, November 24, 1961.

The Honourable David J. Walker, Minister of Public Works, Ottawa.

SIR:

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1961.

Your obedient servant,
H. A. YOUNG,
Deputy Minister.

OTTAWA, November 24, 1961.

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

(As of March 31, 1961)

Minister.....	Hon. David J. Walker
Parliamentary Secretary.....	Yvon R. Tassé, M.P.
Executive Assistant to the Minister.....	H. N. R. Jackman
Deputy Minister.....	Major-General H. A. Young
Executive Assistant to the Deputy Minister..	H. G. J. Walls
Assistant Deputy Minister.....	George T. Jackson
Assistant Deputy Minister (Technical).....	G. B. Williams
Chief of Administrative Services and Secretary	Robert Fortier
Director, Economic Studies Branch.....	Dr. E. P. Weeks
Financial Adviser.....	L. V. McGurran
Chief, Purchasing and Stores Branch.....	H. G. Hunt
Chief, Information Services.....	E. J. Marten
Chief, Personnel Branch.....	J. F. Maxwell
Chief, Legal Services.....	Alban Garon
Dominion Fire Commissioner.....	R. A. W. Switzer

Regional Directors

Montreal, P.Q.....	R. J. Grenier (On Loan to Royal Commission on Government Organization)
Edmonton, Alta.....	O. H. Leicester

Harbours and Rivers Engineering Branch

Chief Engineer.....	G. Millar
Executive Assistant Engineer.....	P. W. Walters
Chief, Marine Excavation Division.....	J. F. Godsell
Chief, Maintenance and Operations Division.....	C. K. Hurst
Chief, Planning and Construction Division.....	J. E. Bright

District Engineers

St. John's.....	G. E. Knight
Charlottetown.....	C. W. Currie
Halifax.....	J. A. Brown
Saint John.....	(Vacant)
Rimouski.....	G. Lajoie
Quebec.....	L. McLaren
Montreal.....	A. H. Gagnon
Ottawa.....	A. Michaud
Toronto.....	R. P. Henderson
London.....	G. N. Scroggie
Fort William.....	E. B. Ashton (Acting)
Winnipeg.....	C. L. Davies
Edmonton.....	C. A. Walrath (Acting)
Vancouver.....	A. W. Walkey

Development Engineering Branch

Chief Engineer.....	G. T. Clarke
Administrative Officer to Chief Engineer.	W. D. Egan
Chief, Highways Division.....	W. R. Binks
Chief, Structures Division.....	V. S. Thompson
Chief, Testing Laboratories.....	N. E. Laycraft

Supervising Engineers

Newfoundland.....	A. L. Perley
Nova Scotia.....	H. F. Peters
New Brunswick and Prince Edward Island.....	H. A. Nason (Acting)
Ontario.....	W. Koropatnick
Manitoba and Saskatchewan.....	J. A. Flatt
Alberta and Northwest Territories.....	J. E. Savage
Banff, Alberta (Western National Parks)	A. H. MacKinnon
British Columbia.....	B. G. Harvey
Whitehorse, Yukon Territories.....	J. E. Kellett

Building Construction Branch

Chief Architect.....	E. A. Gardner
Assistant Chief Architect.....	A. K. Mills
Assistant Director i/c Administration..	E. C. Martel
Chief, Requirements Division.....	E. G. Langley
Chief, Plans and Specifications Division..	I. B. Simpson
Chief, Northern Construction Division..	G. B. Pritchard

District Architects

St. John's.....	L. W. Hopkins
Halifax.....	P. W. Vaughan
Saint John.....	R. F. West
Quebec.....	J. A. Drolet
Montreal.....	P. R. Martineau
Ottawa.....	A. D. Wilson
Toronto.....	J. E. Kelly
Winnipeg.....	H. C. Tod
Edmonton.....	A. E. Cook
Vancouver.....	R. J. Bickford

Property and Building Management

Director.....	D. A. Freeze
Assistant Director.....	R. G. McFarlane
Chief, Lands Administration Division..	W. F. Cherry
Chief, Accommodation Division.....	A. S. Archard
Chief, Operations Division.....	E. W. Labelle

District Managers

St. John's.....	J. W. Pye
Halifax.....	L. B. Campbell
Saint John.....	R. S. Lawrence
Quebec.....	E. Raymond
Montreal.....	G. K. Aubut
Ottawa.....	(Vacant)
Toronto.....	W. H. Kayes
London.....	R. Isted
Winnipeg.....	F. H. Weyerman
Saskatoon.....	R. S. Fonberg
Edmonton.....	J. T. Gibson
Vancouver.....	G. E. McPhee

REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1961

Introduction

During the 1960-61 fiscal year, the Headquarters of the Department of Public Works was moved from the Hunter Building and other downtown locations in Ottawa to a new building in Confederation Heights, on the outskirts of the City. The Hunter Building, named after a former Deputy Minister, had been the headquarters of the Department for forty years. The new building is named in honour of Sir Charles Tupper, one of the Fathers of Confederation, a former Minister of Public Works and one-time Prime Minister of Canada. Because of the greatly improved accommodation in the new building and the assembling of the headquarters organizations all together in one location, considerable improvements in the administration of the Department have resulted.

During the year the works program carried out by the Department, as measured in dollar value, was somewhat smaller than that for 1959-60. This was true of work done with funds from Departmental estimates, as well as of work carried out with funds from the estimates of other Government departments and agencies. However, there was an increase during the year in the number of projects handled by Public Works on behalf of other departments and agencies.

Expenditures from Departmental estimates during the year totalled \$190,842,916 compared with \$209,248,591 for the previous fiscal year. The value of work carried out during the year under encumbrances from other departments and therefore not reported in Public Works accounts was \$36,421,633.42 compared with \$49,793,696.75 for 1959-60. The number of projects carried out for other departments and agencies, on the other hand, increased to 565 compared with 534 for the previous fiscal year. Overall expenditures were \$227,264,549.42 for the year compared with \$259,042,287.75 for 1959-60.

General Comments

The Department's Development Engineering Branch was reorganized during the year to meet the need for a greater variety in its engineering and administrative functions. The former Highways Division was dissolved and two new Divisions established, the Engineering and Construction Division and the Technical Coordination and Administration Division. These changes reflect a demand for more diversified services from this Branch which now handles such matters as the installation of storm-sewers, water mains and access roads for various construction projects, and work for the Emergency Measures Organization on fallout shelters, in addition to work on the Trans-Canada Highway and the Roads-to-Resources program.

Another development was the cooperative arrangement made with the Department of Justice and approved as a policy, that the Department of Public Works should undertake all major construction projects for the Office of the Commissioner of Penitentiaries. Active liaison was begun between the two Departments during the year in penitentiary construction activities. Initial work was also begun on the proposed standardization of the furniture specifications of the Department of National Defence with those of the Department of Public Works.

There were a number of important construction projects for which contracts were awarded during the year or on which work was begun previously and continued during 1960-61. The main pier was completed in the Harbour reconstruction at St. John's, Newfoundland, at a cost of about \$4 million, and the construction program for community fishing stages in that Province was continued. A contract was awarded for construction of the Oceanographic and Hydrographic Building at Dartmouth, N.S., for the Department of Mines and Technical Surveys. In the North Shore area of Quebec, a number of important projects were in progress to expand wharfage facilities at such key locations as Bay Comeau and Seven Islands. This work is associated with large mining, power and industrial developments being carried out in this area by private interests. In Quebec city the contract was awarded for a large postal terminal building.

In Ontario, development work was carried out for several harbours on the Great Lakes to enable them to meet shipping conditions resulting from the St. Lawrence Seaway. New structures were started and extensive dredging was carried out at Toronto and Hamilton and plans were prepared for a major ship channel extension at Toronto. Good progress was made on the large new harbour terminal at the Lakehead and dredging carried out at Port Arthur and Fort William to enable these harbours to handle deep-sea shipping when the deepening of the inter-connecting channels at Sault Ste. Marie opens the upper lakes to deep-sea traffic. Construction of a large new postal terminal at London was begun. In Western Canada work was continued on the new U.I.C. building at Winnipeg and a new building for the Department of National Revenue was begun in Regina. A new type of floating wharf, designed to overcome the severe ice conditions on the McKenzie River was installed at Fort Simpson in the Northwest Territories. Good progress was made on the reconstruction of the assembly wharf at Nanaimo, B.C., and construction of a new Federal building was begun at Penticton.

Two important developments occurred during the year in regard to the Trans-Canada Highway. A Trans-Canada Highway Agreement was signed with the Province of Quebec which means that all ten Canadian Provinces are now participating in the Trans-Canada system. In Ontario, work was sufficiently advanced for the section of the Trans-Canada north of Lake Superior to be officially opened to traffic. This means that a modern all-Canadian motor highway now connects Western and Central Canada for the first time.

Work was continued on the Burlington Canal bridge in Ontario and on the bridge connecting Campbellton, N.B., with Cross Point Quebec. Construction was sufficiently advanced on these two projects during the year to indicate completion in 1962. An agreement between the Federal Government and the Provinces of Quebec and Ontario was signed for construction of a new Interprovincial Bridge over the Ottawa River between Ottawa and Hull. It will be known as the Macdonald-Cartier Bridge in honour of the two leading Fathers of Confederation from Ontario and Quebec.

The Department continued during 1960-61 to emphasize winter construction as much as practicable so as to provide additional employment during the winter months. A standard clause specifying that work must be continued during the winter unless the Department's permission to cease operations is obtained, was inserted in most of the construction contracts issued. The program for construction of standard Post Office buildings in the smaller communities of Canada was continued with a total of 90 contracts awarded for the 1960-61 winter. During the six-month period from December 1960 to May 1961 inclusive, 3,493,855 man hours of employment were provided by the Department's three main construction branches. Less success was achieved in highways and harbour work in providing winter employment than in building construction, which lends itself more readily to winter activity. In building construction, the winter employment provided for the 1960-61 winter amounted to 44% of the annual total, that is 6% lower than the annual six-month average.

Expenditures and Revenue

The total expenditure by the Department during the fiscal year 1960-61, on its various works of construction, maintenance and operation amounted to \$227,264,549.42 including \$36,421,633.42 expended under encumbrances from other departments but not reported in Public Works accounts.

The details of expenditures for the year may be classified as follows:

Public Buildings.....	\$80,090,411.00	
Development Engineering.....	62,381,229.00	
Harbours and River works.....	32,974,895.00	
Dredging, plant, etc.....	5,450,974.00	
Minister's Salary and Motor Car Allowance.....	17,000.00	
Departmental Administration.....	9,749,986.00	
Fire Prevention.....	178,421.00	
	<hr/>	\$ 190,842,916.00
Expenditures made under encumbrances from other departments but not re- ported in Public Works accounts:		
Public Buildings.....	\$20,629,413.36	
Development Engineering.....	11,541,001.24	
Harbours and Rivers.....	4,251,218.82	
	<hr/>	\$ 36,421,633.42
		<hr/>
		\$ 227,264,549.42

The revenue for the year amounted to \$4,659,214.63 and is made up as follows:

Graving Docks.....	\$ 351,093.72	
Rents.....	1,578,493.04	
Casual Revenue.....	2,729,291.88	
Ferries.....	335.99	
	<hr/>	\$ 4,659,214.63

As compared with 1959-60, there was a net increase in revenue of \$2,377,477.30. There was an increase in rents of \$287,147.99 and in casual revenue of \$2,095,681.15. During 1960-61 there was a decrease in revenue from graving docks of \$4,949.83 and ferries of \$402.01.

ADMINISTRATIVE SERVICES AND DEPARTMENTAL SECRETARY

During the year, public tenders for 476 projects were advertised by Headquarters in newspapers and industrial publications across the country. In addition, the regional and district offices advertised many projects which had estimated costs of less than \$15,000 each.

This was the second year in which Performance Bonds and Labour and Material Payment Bonds were accepted as security in bids on Departmental projects. There has been a slight increase in the number of Bid Bonds over the other types of security accompanying tenders, but around the middle of the fiscal year the proportion appeared to reach a fixed level.

The Central Registry received and processed 210,831 pieces of correspondence and opened 8,098 new files during the year. In June, 1960, following the move to the new location, this section took on the operation of two teletype machines owned by the telegraph companies, for relaying telegrams to the Sir Charles Tupper Building from the main Ottawa telegraph offices. the telex system which links Headquarters in an instant communication with nine regional and district offices from St. John's to Vancouver logged 21,410 messages during the fiscal year.

Preliminary action was taken by the Central Registry to initiate a program of destruction of records through scheduling to be submitted to the Public Records Committee for approval.

The Forms Control Division completed the gathering of all forms used in the Department's district offices during the year, and a revision is under way, with a view to eliminating duplication.

The Equipment and Supply Division continued to service all branches at Headquarters and Districts, and was the liaison between the Department and the Queen's Printer both for supply of office materials and duplicating work.

Photographic Services continued to produce photographic material, photo-stats, map mountings and reproduction of drawings for the Department and for other departments and agencies in the Ottawa area.

ECONOMIC STUDIES BRANCH

The main function of the Economic Studies Branch is to assess and to make specific recommendations on, proposed public projects from the economic point of view, particularly where capital outlays are involved.

During the year under review, the Branch also made assessments of prospects for population and economic growth in various communities in different parts of the country (including several metropolitan areas), where provision of new or additional space to accommodate Federal departments was under consideration. This work complemented the Branch's representation on the Treasury Board Committee on Accommodation Standards.

Members of the Branch made several on-site surveys of various harbours. The Interdepartmental Group comprising four senior officials of the Departments of Public Works, and of Transport, continued to investigate and report on certain major questions. The Director of the Branch heads this Group. The Branch was also represented on several other interdepartmental committees.

FINANCIAL SERVICES DIVISION

The Financial Services Division, under the direction of the Financial Adviser, acted in a liaison capacity during the year on behalf of the Department in financial matters with Treasury Board, the Comptroller of the Treasury and other departments and agencies.

The major work carried out by the Division concerned; preparation, co-ordination and analysis of the Departmental estimates; development and implementation of policies, methods, and procedures relating to accounting and budgetary control throughout the Department; development, assessment and implementation of policies and procedures relating to Departmental contract administration, including representation on the Treasury Board Advisory Committee on Contracts.

FIRE PREVENTION BRANCH

Effective November 1, 1960, the revised Fire Prevention Regulations, P.C. 1960-51/1499, re-affirmed the Dominion Fire Commissioner as the administrative authority for fire prevention generally in Government property, except that under the control of the Minister of National Defence.

The value of Federal Government fire prevention work is illustrated by the fact that 1,627 fires causing a loss of \$1,479,638 were reported for the calendar year 1960. This is less than half the dollar value for the previous year.

Human carelessness continues to be the largest cause of fires. Consequently, the program of employee instruction and training in fire prevention procedures and the use of hand fire equipment was intensified. This included 60 lectures addressed to an estimated 1,400 employees. Moreover, recently established fire drill procedures were tested when about 25,000 Civil Servants took part in some 40 fire drills.

Through the Annual Fire Prevention Contest, fire prevention educational practices were encouraged in other departments. In a ceremony in the Parliament Buildings, Fire Prevention Awards were presented to several Cabinet Ministers. The Honourable Gordon Churchill received the top award on behalf of the Deer Lodge Veterans Hospital, Winnipeg.

To minimize the possibility of incorporating fire hazards into the design of new buildings, the revised Fire Prevention Regulations require that all departments submit preliminary plans and outline specifications of new construction to the Branch prior to the preparation of the final plans. Over 250 such plans were reviewed as to the fire resistance of the structure, the provision of adequate means of egress and the installation of fire protection equipment.

To supplement these office engineering routines, our field staff made 37 fire protection engineering surveys of Federal property located in National Parks, Indian Reservations, Veterans Affairs hospital sites and experimental farms. Provincial and Municipal fire authorities assisted in this work by submitting over 600 building inspection reports on Federal buildings.

Fire protection engineering standards for the use of all responsible for the design, construction and maintenance of Government property will be published during the coming year after drafts prepared by several interdepartmental sub-committees have been approved by the Federal Fire Prevention Committee.

Four new Technical Information Bulletins were published and distributed to a request list of over 500 senior Government officials. Over 3,600 copies of the 39th Annual Report of the Dominion Fire Commissioner outlining Fire Losses in Canada were also distributed to Federal, Provincial and Municipal agencies, foreign government authorities and universities.

The Branch film library, with a total of over 1,000 bookings, increased the awareness of an estimated 110,000 viewers to the dangers of fire hazards and their prevention.

The Fire Marshal of the Northwest Territories, a member of the Fire Prevention Branch, had an active year working in conjunction with the Northern Administration Branch of the Department of Northern Affairs and National Resources. Following two field surveys of the larger communities in the Territories, many improvements were recommended which are being implemented.

Branch technical personnel continue to serve on committees of the National Research Council, Canadian Standards Association, Emergency Measures Organization, Underwriters' Laboratories of Canada, National Fire Protection Association and the Canadian Fire Investigation School. Further assistance including a \$5,000 grant was given to the Canadian Fire Marshals and Fire Chiefs Publicity Committee.

INFORMATION SERVICES DIVISION

During 1960-61 the Division issued some 550 press releases announcing contract awards for various works as well as numerous statements and summaries in response to requests for information from daily, weekly newspapers, magazines, radio and television stations.

The Division is responsible for the co-ordination and control of ceremonial openings of public buildings, wharves and other structures in various parts of Canada. The Division also published the Department's staff magazine and operated a press clipping service during the year covering 31 newspapers and 35 magazines.

The Parliamentary Returns Section prepared information for answers to questions and returns requested in the House of Commons and the Senate during Parliamentary Sessions. This Section was also responsible for production of the Departmental Annual Report and the Trans-Canada Highway Annual Report.

The Departmental Library is responsible for the circulation on a request basis, of books and periodicals, mainly technical in nature, to the District Offices as well as to the Headquarters area. As of March 31, 1960, the Library contained 16,300 catalogued volumes and various technical periodicals.

LEGAL SERVICES

This Division is charged with the responsibility of giving legal advice to the Department, preparing formal legal documents e.g., leases, contracts, agreements etc., examining, amending and approving various legal documents submitted to the Department and performing other incidental legal functions.

Under the amended Navigable Waters Protection Act, Railway Act and National Energy Board Act a total of 448 approvals, declarations and orders were granted by the Minister. This figure does not include applications which were not approved. There has been a considerable increase in correspondence requesting information relating to the Navigable Waters Protection Act.

Submissions directed to Treasury Board and Recommendations to Privy Council totalled 1,173.

Seven hundred and twenty-eight contracts were prepared, including 384 for engineering works, 218 for new construction (architectural) and 126 for maintenance and services.

Three hundred and forty-seven properties were acquired and title documents deposited with the Department.

Leasehold interests were acquired by the Crown by means of new leases or renewals of existing leases for 670 properties and 103 individual leases were prepared for the leasing of Crown-owned property to private persons or Corporations.

It will be noted that the number of contracts is eighty less than last year. The number of title documents lodged with the Department is substantially the same. While the number of properties acquired by the Department by lease has shown an increase of fifty, the number of properties leased to private individuals has somewhat decreased.

PERSONNEL BRANCH

All Departmental staff moved from the Garland and Hunter Buildings to the Sir Charles Tupper Building in June. This modern building with greatly improved accommodation, canteen, cafeteria and large parking lot, had a beneficial effect on staff morale. Requests for transfer, because of the re-location from the centre of Ottawa, have been fewer than anticipated.

As in other years, the Personnel Branch acted for the Department in the annual review of Staff Estimates. An increase of 106 positions was approved. The authorized establishment of the Department for 1960-61 totalled 9,363 and was distributed as follows:

Professional and Technical.....	887
Administrative and Clerical.....	1,048
Ships' Officers and Crews.....	551
Prevailing Rate.....	2,048
Building Maintenance and Others.....	4,829
	<hr/>
	9,363

A total of 367 competitions were held for vacancies within the Department. Of these, 328 were conducted by the Civil Service Commission, either open to employees of the Public Service, or to the public generally. The balance, 39, were promotional competitions, open only to employees of the Department.

The Staff Training Division assisted in the implementation of a training program designed to educate employees of the Property and Building Management Branch in improved cleaning methods and techniques. Approximately 1,500 Cleaning Service Men and Cleaning Service Women were trained in Ottawa and the program is being expanded to district staffs.

The Division conducted courses on letter and report writing and indoctrination of new employees. In addition, various short courses and organized visits were planned for people from other countries visiting Canada under the External Aid Programme; included was one group of students taking post-graduate studies at Carleton University.

Several senior officials of the Department gave addresses and lectures to students in Public Administration at Carleton University.

During the year an intensified campaign was conducted to promote participation in the Suggestion Award Plan, which resulted in 575 suggestions being submitted, an increase of more than 200% over the previous year. A total of 28 suggestions were implemented; of this number 15 were cash awards totalling \$1,293 and 13 were awards in kind, valued at \$127. The rate of participation per 1,000 employees increased from 19.4 in the previous year to 61.41 this year. The estimated saving also showed an increase from \$16,855 to \$25,048.

PURCHASING AND STORES BRANCH

The Branch is responsible for the purchase of building maintenance supplies and construction materials for the operating Branches of the Department and also the acquisition of office furniture and furnishings for Government Departments and their issue in accordance with established regulations and standards.

A total of 118 organizations requisition on the Purchasing and Stores Branch with 80 of these being other Government Departments or Agencies. Requisitions to a total of 13,804 were received compared to 16,349 in the past year. Most of this reduction is attributable to an economy in furniture requisitions and requirements in co-operation with the requisitioning departments.

As in the past few years the efforts of the operating Branches in connection with the Department's Winter Works' Program produced a resultant increase in the purchases placed during this period of the year, particularly in the field of Post Office Fittings. In addition, the Branch exercised its own control over furniture requirements so that purchases were phased to provide orders to the manufacturers during the winter months.

During the 1960-61 fiscal year continued efforts were made to reduce the cost of purchases. The total number of purchases placed was 6,196 as compared with 6,983 in the 1959-60. Part of this may be explained by a reduction in the number of requisitions received, but another part is explained by better consolidation of purchases thus avoiding duplication of effort. In addition, a considerable reduction in the number of invoices passing through the Branch was effected. The number decreased from 23,415 in 1959-60 to 12,847 in 1960-61. This was made possible by a review of our internal procedures and a decision that invoices for maintenance supplies, coal and fuel could be processed direct to the Chief Treasury Officer thus avoiding a further duplication of work.

Improved statistical records were established with the result that it is now possible to state that Headquarters' purchases were approximately \$12,000,000 in value. A total of 25,809 small local purchases were made in the districts to a value of approximately \$3,000,000.

In addition to the foregoing, purchases to a value of \$53,000, were made for 18 other Departments or Agencies on a repayment basis.

In the field of furniture requisitions and issues, a total of 9,587 individual investigations were made. This represents an increase of 1,313 over the previous year. These investigations resulted in a saving of \$473,862, based on actual reduction of issues, compared to requisitions received.

The replacement value of furniture on issue to Government Departments is now estimated as being \$41,479,932.

The addition of an employee in the Specifications and Inspections Section permitted a 15% increase in the number of inspection reports prepared by the unit. It also permitted closer liaison with the Department's Testing Laboratories. Initial work towards a proposed standardization of furniture specifications with those of the Department of National Defence was also started.

The Departmental Board of Survey convened nine times to consider Applications for Write-Off. This resulted in a total of 159 Reports of Surplus being forwarded to the Crown Assets Disposal Corporation. The Districts' Boards of Survey in their first full year of operation submitted a total of 123 declarations to Headquarters.

PROPERTY AND BUILDING MANAGEMENT BRANCH

The Property and Building Management Branch is responsible for the administration of the Public Works Act as it affects the acquisition and maintenance of properties and buildings housing Government Departments. This involves the administration of approximately 1,400 Crown-owned buildings and some 1,500 leased premises, with a total area of 30,000,000 sq. ft., of which approximately 5,000,000 sq. ft. is leased.

The total cost of occupying and maintaining these premises, amounted to \$43,444,515.35 in the fiscal year ending March 31, 1961. Included therein is the rental cost of leased premises amounting to \$7,685,598.70. The following is the space distribution together with the costs of occupancy and maintenance by location:

NET USABLE AREA

Location	Crown-Owned		Leased		Cost
	No.	Sq.Ft. (1,000's)	No.	Sq.Ft. (1,000's)	
Newfoundland.....	90	337	43	58	\$ 648,050.06
Nova Scotia.....	87	684	67	188	1,188,591.72
Prince Edward Island.....	11	160	5	2	206,923.58
New Brunswick.....	69	640	63	170	1,012,176.08
Quebec.....	270	4,056	317	687	7,330,739.51
Ontario.....	331	5,237	361	926	7,469,132.59
Manitoba.....	74	1,161	70	207	1,773,446.22
Saskatchewan.....	114	1,219	184	140	1,331,208.88
Alberta and N.W.T.....	106	1,243	178	235	1,943,163.91
British Columbia and Y.T.....	123	2,424	163	319	3,472,691.92
New York.....	—	—	1	3	23,545.32
London, England.....	2	96	15	62	309,849.52
Ottawa—Hull.....	97	8,096	88	1,958	16,734,996.04
TOTAL.....	1,374	25,353	1,555	4,955	\$43,444,515.35

The active leases in effect at March 31, 1961, totalled 1,689, of which 1,555 were for various types of accommodation and 134 for miscellaneous rental agreements covering easements, sidewalk areas, etc.

Three hundred and thirty-eight properties were acquired for building sites at a cost of \$4,044,142.99. An additional 515 properties were in various stages of acquisition at the close of the fiscal year at an estimated cost of \$10,493,741.00. There was a considerable increase during the year in the acquisition of sites for other Government Departments.

Another responsibility of the Branch is the determination of the need for, and the size of, new buildings to be constructed by the Department, as well as the rehabilitation of old buildings. To this end, during the year recommendations were prepared covering 159 buildings involving 2,577,000 sq. ft. of new or renewed space. In line with this responsibility a continuing review is conducted leading to the determination, establishment and maintenance of accommodation standards for all purposes.

Where Crown-owned space became available by reason of the transfer of units of Government from one location to another, every effort was made to secure a financial return by the leasing of such vacant areas at commercial rates. During the year \$554,375.97 in revenue was realized in this manner. In addition rents collected from occupants of Crown-owned housing administered by the Department totalled \$847,968.82. Public telephones located in Federal accommodation yielded commissions of \$22,758.63.

The Branch is organized into three functional divisions at Headquarters, the Lands Division, the Accommodation Division, and the Operations Division, and is represented by 13 District Offices in Canada and one in London, England.

HARBOURS AND RIVERS ENGINEERING BRANCH

During 1960-61 this Branch carried out construction and repairs to over 2,000 projects including wharves, breakwaters, protection works and other harbour facilities. A total of 84 projects were still in progress at the end of the fiscal year.

Dredging was carried out in 410 locations, involving the removal of 12,465,830 cubic yards of material.

Locks, dams and drydocks were maintained and a fleet of dredges, scows, tugs, inspection and survey boats operated to carry out the Departmental program.

Newfoundland

Work progressed rapidly during the year on the \$13 million development of the harbour at St. John's. Whole sections of the waterfront have been demolished and are being replaced with structures, employing practically every known type of marine construction:—concrete cribs, timber cribs, timber piles, sheet steel piles, concrete piles, etc. The substructure of the main pier was completed at a cost of around \$4 million. A number of other contracts were awarded to ensure continued operation and to provide more winter employment.

Work also proceeded on the marine terminal facilities at Corner Brook and Lewisporte, being constructed for the use of the C.N.R. coastal services. These services are very important in Newfoundland where marine transportation plays such an important role. At Corner Brook, large concrete piles are being used as the foundation for the first time in the experience of the Department.

The program of constructing community stages for the Department of Fisheries was continued and in many settlements the fishermen are now beginning to appreciate the benefits of this program. Throughout the district most projects were continued well into the winter and in some cases through the entire year.

Nova Scotia

Considerable progress was made on the reconstruction of the public marine facilities in Pictou which were destroyed by fire in July 1959. The quay wall was reconstructed by means of trimming the original creosoted piles to low water level and building up the structure with precast reinforced concrete trusses and poured-in-place concrete columns. This design is new and all appearances point to success. The bracing and deck are reinforced concrete; hence the structure is virtually fireproof. Rail and warehouse facilities are also included in the project.

Work on the Oceanographic and Hydrographic Research Station at Bedford Basin is well under way, with contracts being awarded for the marine facilities as well as the buildings and roads. This new research centre, being constructed for the Department of Mines and Technical Surveys, should play an important part in developing Canadian knowledge through study of ocean and sea beds. The two contracts awarded for the removal of rock and overburden and the construction of reinforced concrete cribs will involve an expenditure of approximately \$1,800,000.

Prince Edward Island

The approach to the ferry docks at Wood Islands was improved by dredging and the construction of a new steel sheet pile breakwater. This terminal for ferries plying between Nova Scotia and Prince Edward Island is continually being improved, particularly by dredging a wider entrance and larger basin. Repairs to the sea wall at Squaw Point were carried out for the Department of National Defence. The haulout at Charlottetown was repaired for the Department of Fisheries.

New Brunswick

Two dredging contracts were completed in the Courtenay Bay area at Saint John. This dredging served to provide adequate water for 40,000-ton tankers carrying products to and from the new oil refinery in East Saint John. Additional protection was afforded the whole harbour by a further extension of the Negro Point breakwaters towards Partridge Island. This work in the Saint John area involved an expenditure of nearly \$1 million.

In northern New Brunswick, the new deep water wharf at Dalhousie was completed. This harbour is becoming known as a winter port since in recent years efforts by all concerned to keep it clear of ice have proved successful.

Quebec

The North Shore area of the St. Lawrence River is still undergoing tremendous mining, power and industrial development, thus increasing the need for deeper harbours and expanded wharfage facilities at a number of key locations, such as Baie Comeau and Seven Islands. These developments are leading to increased cross-river traffic, with a consequent demand for improved ferry services for both automobiles and cargo.

In conjunction with the Quebec North Shore Paper Company, Quebec Hydro Power Commission, and the Provincial Department of Lands and Forests, an overall development of Baie Comeau harbour was planned. Actual work will not start until next year, but extensive surveys and investigations were completed so as to provide a harbour incorporating facilities for the various interested parties.

At Seven Islands the new Third Wharf, recently built, already requires enlargement to accommodate the traffic, and plans to carry out this work are being firmed up. As well, a new oil dock is being built by Imperial Oil Company to handle petroleum products. Other private harbour developments in this area are being carried out with private funds as part of the overall development. They

include the development of Port Cartier, formerly Shelter Bay, which is being improved for the shipment of iron ore concentrates. A start is being made on a new harbour at Pointe Noir for the Wabash development. Public and private marine work together in this general area involve investments approaching \$50 million in the last couple of years.

On the south shore of the St. Lawrence, to connect up with this industrial complex, the harbour at Pointe au Pere is being improved by the Department through a major wharf enlargement and the provision of sheds, slips and a five-mile railway spur line. This work progressed very rapidly during the year and is expected to be completed during the next fiscal year.

Ontario

The development of harbours to meet seaway conditions was continued at a number of centres throughout Ontario. New structures and extensive dredging, particularly at Toronto and Hamilton, were again the order of the year. The Strathearne Avenue terminal in Hamilton and the Burlington Beach wharves were both practically completed. Plans for a major ship channel extension at Toronto were well developed, with construction set for next year. Work on the Toronto Island Airport retaining walls, and dredging of the western entrance channel, were also completed.

Great strides were made on the new Seaway terminal at the Lakehead. The main wharf substructure was practically completed, as well as most of the access road work. The transit sheds and overpass are yet to come, but the whole project is on schedule and should be finished by the end of next year. Some seven miles of rail track installation are still to be undertaken. Dredging of both Fort William and Port Arthur harbours to Seaway depth was continued, so that they will be ready for use with completion of the deepening program in the inter-connecting channels at Sault Ste. Marie.

Manitoba

A new wharf was constructed at Matheson Island Landing for the use of small fish freighters on Lake Winnipeg. The Provincial Government extended their roadway to this location and as a result of the development, two major fish companies now proposed to freight fish from this area.

Channel excavation work at Fort Prince of Wales was in progress, as well as a number of smaller wharf repair projects.

Alberta and Northwest Territories

A floating wharf was installed at Fort Simpson in the Northwest Territories. This is a new departure from ordinary wharf construction in the area, and resulted from our desire to combat the severe ice conditions on the Mackenzie River. This floating wharf is made of ten steel tanks which are easy to connect together and can be launched and hauled out each year. The wharf at Cambridge Bay was completed and a number of major projects undertaken at centres in the Northwest Territories, such as Fort Providence, Hay River, Beaver Lake and Tuktoyuktuk.

British Columbia and Yukon Territory

A considerable amount of work was carried out for other Departments in the British Columbia area. Such works as seaplane landings, mooring floats, electrical system conversion, derrick installations, etc., were carried out for the Departments of Citizenship and Immigration, Fisheries, Mines and Technical Surveys, National Defence, and Transport. The reconstruction of the Nanaimo Assembly Wharf proceeded throughout the year, as well as smaller repair jobs on a number of other structures. The substructure of the New Westminster Railway Bridge was repaired.

Extensive studies were made for the Trifurcation Area scheme on the Fraser River, including survey and test boring investigations, as well as continued review of the Fraser River hydraulic model results.

DEVELOPMENT ENGINEERING BRANCH

The number and variety of projects undertaken by the Development Engineering Branch continue to increase as the diversified services available come into increasing demand from many quarters.

Undertakings by the Branch in 1960-61 included surveys, layouts and the installation of services such as storm-sewers, water mains and access roads for such major projects as the Oceanographic and Hydrographic Station at Dartmouth, a proposed Animal Research Institute at Ottawa and the Dominion Astrophysical Observatory at Victoria. Established district offices across the country also proved of great value in the undertaking of an extensive survey for the Emergency Measures Organization of all Federal Buildings throughout the Dominion in order to determine their potential as nuclear fallout shelters.

In view of the broadening scope of the Branch's activities it was decided to change the designation of the Highways Division at the end of the fiscal year to Engineering and Construction Division. At the same time an internal reorganization was being carried through to consolidate the personnel engaged in administrative functions into what will be known as the Technical Co-Ordination and Administration Division.

The main responsibilities of the Branch, remain, however, in the highway, materials testing and structural fields where the Branch acts on the one hand as an administrative agency in connection with the Trans-Canada Highway and Roads-to-Resources Agreements, and, on the other, as a construction agency in connection with bridge and highway construction in the National Parks and the Territories, including the Trans-Canada Highway through the Parks and miscellaneous projects on various Federal properties.

TRANS-CANADA HIGHWAY AND ROADS-TO-RESOURCES AGREEMENTS

The Trans-Canada Highway Act, and amendments thereto, provide for Canada's participation in the cost of constructing a Trans-Canada Highway. Under the agreements provided for in the Act, and its amendments, Canada contributes 50% of the cost of constructing the highway, plus an additional 40% on one-tenth of Highway mileage in each province. The existing legislation limits the aggregate amount that Canada may contribute to \$400 million. The construction period extends to December 31, 1963.

It is of interest to note that the Province of Quebec, which had not previously participated in the construction of the Trans-Canada Highway, became party to an agreement on October 27, 1960. Work on the Highway in that Province will commence in the 1961 season when tender calls will be issued and construction started on a very extensive program.

Full details covering the progress of construction, commitments accrued and payments made to each province under the agreements may be found in the Report of Proceedings under the Trans-Canada Highway Act for the fiscal year ended March 31, 1961.

The Branch also administers the Federal Roads-to-Resources agreements with the provinces on behalf of the Department of Northern Affairs and National Resources. Under this program agreements have been entered into with the

provinces covering Canada's contribution to the cost of constructing Resource Development Roads. The extent of the Federal contribution is 50% of the cost of constructing approved roads up to a maximum of \$7.5 million for each province.

FEDERAL CONSTRUCTION PROJECTS

While a detailed tabulation of the various projects will be found on page 44, the principal activities of the Branch in the various areas of the country are outlined in the following paragraphs:

Newfoundland

On the Trans-Canada Highway in Terra Nova National Park the application of base course and bituminous stabilized base course was completed during the year at a cost of \$2.1 million. In addition, survey work was carried out in connection with the proposed reconstruction of the Eastport Road and Causeway.

Prince Edward Island

The reconstruction of the Gulf Shore Road was almost completed for an expenditure of over \$700,000 and model studies of a proposed bridge over Rustico Harbour were carried out to determine the possible effects of such structure on tidal currents in the Harbour. Studies regarding the feasibility of a causeway across the Northumberland Strait to link the Island with the Mainland were also continued.

Nova Scotia

In Cape Breton Highlands National Park grading was completed to Mile 29.5 of the Cabot Trail and 75% completed between that point and Mile 33.5. Paving from Mile 15 to Mile 33.5 was about 60% complete and a bridge was constructed over the Grande Anse River at Mile 24.75. Total expenditure was \$1.18 million. On behalf of the Department of Mines and Technical Surveys, an access road, security fence and water main system were installed at the Oceanographic and Hydrographic Station at Dartmouth.

New Brunswick

Expenditures in New Brunswick totalled over \$1.6 million, with the principal project being the Interprovincial Bridge between Campbellton, N.B. and Cross-Point, P.Q. where work was sufficiently advanced to indicate completion in 1961-62.

Agreement was reached with the Province of New Brunswick concerning the construction of an International Bridge to join Campobello Island with the mainland at Lubec in U.S.A., which project is also scheduled for completion in 1961-1962. Other projects included completion of paving of the Wolfe's Point and Herring Cove Road in Fundy National Park, as well as an investigation for an access road to the Animal Quarantine Station at Grande Bay.

Quebec

During the year agreement was reached between the Dominion Government and the Province of Quebec for the latter to participate under the Trans-Canada Highway Act. This development made necessary an ad hoc arrangement of a Quebec District and establishment planning was completed for full scale Branch operations commencing in 1961-62. The Branch also undertook paving of the parking facilities at the Customs and Immigration Building at Stanhope. The Campbellton-Cross Point Interprovincial Bridge project also applied to the Province of Quebec and is described above under New Brunswick.

Ontario

Construction continued on the Low Level Bridge over the canal at Burlington and this structure should be completed in 1961-62. Expenditures in 1960-61 on this project amount to \$1.5 million. Special engineering studies were undertaken in the Ottawa Greenbelt Area with the principal projects being a site development survey for the new Animal Diseases Research Institute of the Department of Agriculture and a major development for the Department of Mines and Technical Surveys.

Manitoba

Activities in Manitoba during 1960-61 were mainly confined to the area of Fort Churchill. Work was commenced on the installation of a water and sewage system at Eskimo Camp 20, near Fort Churchill, as well as on the installation of a water supply system for various communities of Federal buildings in the locality. The ultimate cost of these projects will amount to over \$1.3 million.

Saskatchewan

A number of small projects were undertaken in this Province with a total value of about \$70,000. The principal items were the installation of sewage pump-houses at the R.C.M.P. Barracks at Regina and at the Dominion Experimental Farm at Indian Head.

Alberta

The chief projects carried out in Alberta during 1960-61 were on the Trans-Canada Highway in Banff National Park, where final paving was applied to the first 14 miles of the Highway at a cost of \$442,000, and on the Banff-Jasper Highway. On the latter Highway paving was extended from Mile 49 to Mile 68. Grading was vigorously pursued between that point and Mile 104.5, and at the end of the construction season was well advanced. Expenditures on the Banff-Jasper during the year amounted to \$3.15 million. The final phase of the reconstruction of Banff Avenue was commenced in 1960-61 and will be completed in the following fiscal year.

British Columbia

In Kootenay National Park paving was commenced on the area between Mile 1 and Mile 18 of the Banff-Windermere Highway (Mile 18 to Mile 56.2 having been completed previously). Studies of the problem associated with the final 10 miles were also advanced to a point where it was possible to issue a contract for grading from Mile 56.2 to Mile 62.4 which will commence in 1961-62. In the remaining section of this highway which traverses the spectacular Iron Gates Area, extensive tunnelling will be necessary to preserve the geometrics of the road in the face of the precipitous terrain. A major difficulty involved in such work will be to ensure that such tunnelling operations will not disturb the underground flow of the famous Radium Hot Springs. Total expenditures on the Banff-Windermere Highway during the year were \$641,000. An additional \$208,000 was spent in completing the reconstruction of the Emerald Lake Road in Yoho National Park and construction was also started on an access road to the Dominion Astrophysical Observatory at Royal Oak, B.C.

Work on the Trans-Canada Highway in the various National Parks continued to be the major item of expense in British Columbia. In Yoho National Park final paving will commence in 1961-62, work during 1960-61 being confined mainly to the railroad re-location at Wapta Lake and seeding and clean-up of slopes and fringes at a cost of some \$287,000. In Revelstoke Park grading was completed on the 7.9 miles of the Highway and the first lift of paving well advanced, expenditures amounting to about \$669,000. In Glacier National Park

almost \$5 million was expended in 1960-61. Grading was practically completed, as were bridges and overpasses, and it is hoped to have this section of the Highway open to some form of traffic during 1961. A start was also made on the erection of the snowsheds which will play such an important part in the avalanche defences.

The building of the 27.3 miles of the Highway through Glacier Park represents one of the most difficult feats of highway engineering ever attempted on this continent. The many engineering problems resulting from the heavy snow fall and the narrow, steep walled valley are reflected in the elaborate avalanche defences and the large number of other structures (including seven bridges, a 600 foot tunnel and the installation of over five miles of culvert pipe). All of this work has had to be carried out during construction seasons made extremely short by the late melting of snow in the deep valleys and the early onset of winter.

Northwest Territories

The Branch is acting as the engineering and construction agency for the Department of Northern Affairs and National Resources. Present planning envisages the construction of some 1,400 miles of road. This will provide the frame for the extensive network of roads required to span the great distances and develop the almost untapped resources of Canada's Northland.

In 1960-61, expenditure in the Northwest Territories was \$3.14 million, with approximately half of this amount being spent on the extension of the MacKenzie Highway from Fort Providence to Yellowknife. Work on this 281-mile section was virtually completed during the year with the exception of the MacKenzie River crossing where the construction of a steel ferry boat, together with its necessary landing facilities, is underway. Work on the reconstruction of the Highway from Hay River to the Alberta Boundary was also started during 1960-61.

Survey work was continued in the Northwest Territories particularly from Yellowknife to MacKay Lake and Fort Reliance where reconnaissance and location was completed on approximately 85 miles of road.

Yukon Territory

Expenditure in the Yukon was approximately \$2.3 million. The steel highway bridges over the Pelly and Stewart Rivers were completed during the year and construction continued on the Flat Creek—Eagle Plain road, with another 32 miles being constructed. On the Watson Lake—Ross River road the first 30 miles were completed. Clearing in advance of 1961 contracts was also carried on during the winter months.

General

The year 1960-61 also witnessed the conclusion of negotiations and the signing of an agreement between the Dominion Government, the Provinces of Ontario and Quebec and the Cities of Ottawa and Hull with respect to the construction of a new Interprovincial Bridge to join these two cities. Unanimous decision was reached that this bridge should be called the "Macdonald-Cartier" bridge and preliminary work on the project was started in the latter part of the year.

The year 1960-61 was also a busy one for the Testing Laboratories Division of the Branch. This Division consists of an Ottawa Headquarters Laboratory and a Western Branch Laboratory at Banff, Alberta. These laboratories continue to provide service to many Government agencies, testing a wide variety of materials used in the construction and maintenance of Government facilities as

well as soils investigations which form an integral part of planning with respect to all structures undertaken by the Federal Government. The number of samples tested increased by 40% over the previous fiscal year.

BUILDING CONSTRUCTION BRANCH

Contracts for the construction or extensive alterations and improvements to 265 Federal Buildings and other premises occupied by Government Departments were awarded during the fiscal year 1960-61. Work was still in progress on 182 projects at the end of the year.

Contracts for a number of large buildings were awarded during the year, including the following: the Oceanographic and Hydrographic Building, Dartmouth, N.S., new Federal Building, New Glasgow, N.S., addition and alterations to Federal Buildings at Halifax, N.S. and Moncton, N.B., Stores and Administration Building, Saint John, N.B., Shops Building, Saint John, N.B., building for Veterans Affairs, Montreal, P.Q., Postal Terminal Building, Quebec, P.Q., Applied Physics Laboratory, Ottawa, Ont., Postal Terminal Building, London, Ont., Dormitory, Chapel and Three-Classroom School, Fort Francis, Ont., building for National Revenue, Regina, Sask., new School at St. Philips, Sask., new Federal Building at Penticton, B.C., and Housing and Workshop at Inuvik, N.W.T.

The construction programme in progress across the country included the following main projects:

Dartmouth, Nova Scotia, Oceanographic and Hydrographic Building—A building comprising a four-storey main section (47 feet by 347 feet) and a one-storey depot section (100 feet by 337 feet) of combined structural steel and concrete framing with masonry exterior walls. Total floor area of 108,500 square feet.

Moncton, New Brunswick, Federal Building—A five-storey addition with basement (160 feet by 173 feet) of structural steel framing with stone veneer on the exterior walls. Total floor area of 108,800 square feet.

Montreal, Quebec, building for Veterans Affairs—An eight-storey building with basement (60 feet by 182 feet) of reinforced concrete framing and masonry exterior walls covered with brick veneer. Total floor area of 73,900 square feet.

Quebec City, Quebec, Postal Terminal Building—A six-storey building with basement and mezzanine area (164 feet by 235 feet) of reinforced concrete framing and masonry exterior walls covered with stone veneer. Total floor area of 190,700 square feet.

Ottawa, Ontario, Applied Physics Laboratory—A one-storey extension to Building No. 34 (26 feet by 39 feet), a one-storey extension to Building No. 35 (60 feet by 158 feet), and a four-storey extension to Building No. 36, constructed of reinforced concrete framing and masonry exterior walls covered with brick veneer. Total floor area of 137,100 square feet.

Fort Francis, Ontario, Dormitory, Chapel and Three-Classroom School—A three-storey Dormitory Building (113 feet by 157 feet) of combined structural steel and reinforced concrete framing and brick veneer on the exterior walls; a one-storey Chapel Building (33 feet by 53 feet) of reinforced concrete framing and masonry exterior walls covered with laminated timber arches; and a one-storey three-classroom School (112 feet by 162 feet) of combined structural steel and reinforced concrete framing and brick veneer on the exterior walls. Total floor area of 50,600 square feet.

London, Ontario, Postal Terminal Building—A six-storey building with basement (128 feet by 230 feet) of structural steel framing and masonry exterior walls covered with brick and stone trim. Total floor area of 187,300 square feet.

Regina, Saskatchewan, National Revenue Building—A three-storey building with basement (74 feet by 190 feet) of reinforced concrete framing and masonry exterior walls covered with brick and stone trim. Total floor area of 42,200 square feet.

Penticton, British Columbia, Federal Building—A two-storey building with basement (154 feet by 167 feet) of structural steel framing and masonry exterior walls covered with brick and stone trim. Total floor area of 35,500 square feet.

Inuwik, Northwest Territories, Housing and Workshop Building—A one-storey Workshop Building (32 feet by 108 feet) with laminated wood framing throughout; ten two-storey houses (23 feet by 27 feet) and four two-storey houses (24 feet by 30 feet) with wood framing throughout. Total floor area of 223,000 square feet.

The programme for the accommodation of the Justice Department (R.C.M.P.) was continued. Twenty-five contracts for buildings known as R.C.M.P. Detachment Quarters were awarded, 22 of which were completed and three are still in progress.

Progress is being made on the following large projects, contracts for which were awarded during the previous fiscal year:

Ste. Anne de Bellevue, Quebec....	Laundry Building
Ottawa, Ontario.....	Post Office Buildings
Ottawa, Ontario.....	Communications Building
London, Ontario.....	New Wing at Westminster Hospital
Winnipeg, Manitoba.....	U.I.C. Building
Winnipeg, Manitoba.....	Addition to Science Service Laboratory
Saskatoon, Saskatchewan.....	Federal Building
Medicine Hat, Alberta.....	Federal Building
Kitimat, British Columbia.....	Federal Building

Contracts were awarded for 90 Post Office Buildings throughout the country each costing not over \$25,000, most contracts being awarded during the Fall of 1960 in order to stimulate winter employment.

Details of these works will be found in the Building Construction section of the Report, Page 37.

HARBOURS AND RIVERS ENGINEERING BRANCH

Gerald Millar, Chief Engineer

Location	Date work began	Description
NEWFOUNDLAND		
Battle Harbour.....	Sept. 1958	Construction of "L"-shaped wharf. Completed.
Bay de Verde.....	Resumed May 1960	Reconstruction of existing public wharf. Completed.
Blue Cove.....	Aug. 1959	Construction of "L"-shaped wharf. Completed.
Branch.....	Mar. 1960	Dredging of mooring basin in harbour. Completed.
Budden's Tickle (Sop's Arm)...	June 1960	Construction of "L"-shaped wharf. Completed.
Burgeo.....	Not started	Wharf reconstruction, contract awarded. Work delayed.
Campbellton.....	May 1960	Reconstruction of existing wharf. Completed.
Cape Freels North.....	Resumed May 1960	Community stage and wharf for Department of Fisheries. Completed.
Carmanville.....	June 1959	Reconstruction of existing wharf. Completed.
Catalina.....	June 1960	Dredging adjacent to public wharf. Completed.
Champney's West.....	June 1960	Construction of wharf. Completed.
Coachman's Cove.....	July 1959	Community stage and wharf for Department of Fisheries. Completed.
Codroy.....	July 1960	Dredging of entrance channel and basin in harbour. In progress.
Conche.....	June 1960	Community stage and wharf for Department of Fisheries. In progress.
Corner Brook.....	Jan. 1960	Construction of rail yard facilities, for C.N.R. In progress.
Corner Brook.....	May 1960	Construction of wharf and shed for Department of Transport. In progress.
Deep Bay.....	Resumed May 1960	Community stage and wharf for Department of Fisheries. Completed.
Eastport.....	June 1960	Repairs and extension to existing wharf. Completed.
Eddie's Cove West.....	Aug. 1959	Construction of breakwater. Completed.
Flatrock.....	Feb. 1960	Community Stage and landing facilities for Department of Fisheries. In progress.
Fleur de Lys.....	Resumed June 1960	Community stage and wharf for Department of Fisheries. Completed.
Goose Bay (Happy Valley).....	Resumed June 1960	Construction of wharf and shed. In progress.
Gooseberry Cove.....	Sept. 1959	Extension to breakwater wharf. Completed.
Grand Bank.....	Resumed Oct. 1960	Construction of rubble mound breakwater. Completed.
Grand Bank.....	Sept. 1960	Construction of freight shed. Completed.
Gull Island.....	Aug. 1960	Construction of wharf. In progress.
Hampden.....	June 1960	Construction of "L"-shaped wharf. Completed.
Hare Bay.....	June 1960	Repairs to wharf. Completed.
Hermitage.....	April 1960	Reconstruction of existing wharf. Completed.
Herring Neck.....	June 1960	Reconstruction of existing wharf. Completed.
Hillgrade.....	Resumed July 1960	Construction of wharf. Completed.
Island Harbour.....	Resumed May 1960	Community stage and wharf for Department of Fisheries. Completed.
Leading Ticks.....	Resumed June 1960	Community stage and wharf for Department of Fisheries. Completed.
Lewisporte.....	Oct. 1960	Construction of wharf extension and shed for Department of Transport. In progress.
Little Paradise.....	Aug. 1959	Community stage and wharf for Department of Fisheries. Completed.
Lower Island Cove.....	July 1960	Improvements to Fishermen's Landing facilities for Department of Fisheries. In progress.
Long Pond (Manuels).....	July 1960	Replacement of west breakwater. Completed.
Mall Bay.....	Dec. 1959	Construction of breakwater wharf. Completed.
Musgrave Harbour.....	June 1959	Community stage and wharf for Department of Fisheries. Completed.
Nipper's Harbour.....	Resumed June 1960	Construction of two breakwaters. Completed.
Oderin.....	Oct. 1960	Community stage wharf for Department of Fisheries. Completed.
Pacquet.....	Resumed July 1960	Community stage and wharf for Department of Fisheries. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>NEWFOUNDLAND—Concluded</i>		
Peter's River.....	Resumed June 1960	Improvements to Fishermen's Landing facilities. Completed.
Point Lance.....	Resumed May 1960	Construction of breakwater wharf. Completed.
Point Lance.....	Nov. 1959	Community stage and landing facilities for Department of Fisheries. In progress.
Pond Cove.....	Sept. 1959	Construction of "L"-shaped wharf. Completed.
Portugal Cove South.....	Resumed June 1960	Construction of breakwater extension. Completed.
Roddickton.....	June 1960	Construction of extension to existing wharf. Completed.
Rose Blanche.....	Mar. 1960	Construction of wharf. Completed.
St. Brides.....	June 1959	Construction of two breakwaters. Completed.
St. John's Island.....	Aug. 1960	Construction of wharf. Completed.
St. John's.....	Jan. 1959	Construction of wharves for Department of Transport. Completed.
St. John's.....	Jan. 1960	Construction of main terminal wharf. In progress.
St. John's.....	May 1960	Removal of second portion of sunken vessel S.S. Desola. Completed.
St. John's.....	Mar. 1961	Construction of north shore roadway. In progress.
St. John's.....	April 1960	Demolition of C.N.R. Freight Shed. Several business premises and homes on south side of harbour. Completed.
St. Lawrence.....	Oct. 1960	Dredging adjacent to public wharf. Completed.
St. Mary's.....	Sept. 1960	Repairs to wharf. Completed.
St. Phillips.....	Oct. 1960	Repairs to breakwater wharf. Completed.
Sandy Cove.....	Sept. 1960	Community stage and wharf for Department of Fisheries. In progress.
Summerville.....	Resumed May 1960	Community stage and wharf for Department of Fisheries. Completed.
Triton.....	July 1959	Community stage and wharf for Department of Fisheries. Completed.
Trouty.....	Aug. 1959	Repairs to wharf. Completed.
Wild Cove.....	Resumed July 1960	Construction of breakwater. Completed.
William's Harbour.....	Resumed Sept. 1960	Construction of wharf. Completed.
Woody Island.....	Aug. 1960	Repairs to wharf. Completed.
<i>PRINCE EDWARD ISLAND</i>		
Bay Fortune.....	Sept. 1960	Repairs to South Wharf. Completed.
Charlottetown.....	July 1959	Construction of retaining wall. Completed.
Dredging Plant.....	Aug. 1960	Construction of 33-foot diesel launch. Completed.
Dredging Plant.....	Mar. 1960	Construction of new Dredge No. 12. Completed.
Dredging Plant.....	Nov. 1959	Construction of 37½-foot Tug "Midgell". Completed.
Dredging Plant.....	June 1959	Construction of two 60-cubic yard scows for Dredge No. 10. Completed.
Fishing Cove.....	July 1960	Construction of rubble-mound breakwater. Completed.
Fishing Cove.....	May 1960	Dredging a basin area at the wharf. Completed.
Georgetown.....	Aug. 1960	Repairs to Queen's Wharf. Completed.
Howard's Cove.....	July 1959	Construction of Landing. Completed.
Milligan's Shore.....	Feb. 1961	Construction of wharf. In progress.
Rustico Harbour.....	July 1960	Repairs to breakwater. Completed.
Savage Harbour.....	July 1960	Repairs to wharf. Completed.
Skinner's Pond.....	Mar. 1961	Construction of pier extension. In progress.
Tignish.....	Jan. 1961	Replacement of section of South breakwater destroyed by fire. In progress.
Tracadie Harbour.....	Aug. 1959	Construction of wharf and roadway approach. Completed.
Victoria.....	Oct. 1960	Repairs to wharf. In progress.
Wood Islands.....	May 1960	Dredging at ferry terminal. Completed.
Wood Islands.....	Sept. 1960	Demolition, dredging and construction of West Breakwater. In progress.
<i>NOVA SCOTIA</i>		
Allendale.....	Feb. 1960	Construction of wharf at end of existing approach. Completed.
Bear Point.....	Feb. 1961	Reconstruction and extension to "T" section of wharf. In progress.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>NOVA SCOTIA—Continued</i>		
Bedford Basin, Halifax.....	June 1960	Dredging approaches and berths for Oceanographic and Hydrographic Research Station for Department of Mines and Technical Surveys. In progress.
Bedford Basin, Halifax.....	Aug. 1960	Construction of wall and jetty for Department of Mines and Technical Surveys. In progress.
Blue Rocks.....	June 1960	Repairs to breakwater. Completed.
Broad Cove Marsh.....	Nov. 1959	Construction of extension to existing wharf. Completed.
Canso (The Tickle).....	June 1960	Construction of timber block and spur wharf. In progress.
Caribou.....	Sept. 1960	Repairs to Outward West Arm of Ferry Terminal wharf. Completed.
Caribou.....	Sept. 1960	Repairs and improvements to Ferry Terminal wharf and construction of Finger Wharf for Fishermen. In progress.
Central Port Mouton.....	Nov. 1959	Construction of rubble mound breakwater and finger wharves. Completed.
Charles Cove.....	July 1960	Construction of pile work wharf. Completed.
Cheggogin Point.....	Jan. 1960	Repairs to breakwater. Completed.
Cheticamp Point.....	Aug. 1959	Repairs to wharf. Completed.
Church Point.....	Feb. 1961	Construction of rock mound groyne. In progress.
Clarkes Harbour.....	Jan. 1960	Reconstruction portion main wharf and extension to finger wharf. Completed.
Cornwallis.....	Nov. 1959	Removal of pile work jetty, for Department of National Defence. Completed.
Digby.....	April 1960	Annual maintenance of spur and main wharves. Completed.
Dredging Plant.....	Mar. 1959	Construction of Half-Yard Shovel Dredge to replace old clam shell unit. Completed.
Dredging Plant.....	Feb. 1959	Construction of Twin Screw Tug for new Dredge No. 16. Completed.
Dredging Plant.....	Mar. 1959	Construction of two Hopper Scows for new Dredge No. 16. Completed.
East Cove (Seal Island).....	July 1960	Extension to slipway protection. Completed.
Ecum Secum.....	April 1960	Reconstruction cribwork breakwater wharf. Completed.
Flat Mud Island.....	Aug. 1960	Reconstruction of breakwater. Completed.
Grant Etang.....	Nov. 1960	Construction of wharf. Completed.
Hantsport.....	April 1960	Reconstruction of railway trestle and retaining wall. Completed.
Judique (Baxter's).....	Nov. 1959	Reconstruction of wharf and dredging mooring basin. Completed.
Kelly's Cove.....	Nov. 1960	Repairing deck of breakwater in concrete and widening structure. In progress.
Little Judique Harbour.....	Sept. 1960	Repairs to breakwater. Completed.
Little River.....	May 1960	Repairs to superstructure of breakwater resulting from fire damage. Completed.
Little River.....	Mar. 1961	Redredging channel and mooring basin. In progress.
Little Tancook.....	Mar. 1960	Reconstruction of cribwork breakwater. Completed.
Louisburg.....	Jan. 1961	Wharf repairs. Completed.
Lunenburg.....	Nov. 1960	Reconstruction of superstructure of railway wharf. In progress.
Margaree Harbour.....	May 1960	Repairs to sections of north breakwater. Completed.
Mulgrave.....	Feb. 1960	Construction of wharf and quay wall. In progress.
New Campbellton.....	Oct. 1959	Reconstruction of wharf. Completed.
Newellton.....	May 1959	Reconstruction of stem and construction of extension and E11. Completed.
New Haven.....	May 1960	Construction of rock mound breakwater. Completed.
New Haven.....	Feb. 1961	Cribwork wharf extension. In progress.
Northport.....	Mar. 1960	Wharf reconstruction and extension. Completed.
Parrsboro.....	May 1960	Reconstruction of wharf in pilework. Completed.
Pictou.....	Feb. 1960	Reconstruction and extension to quay wall. Completed.
Pictou.....	Nov. 1959	Construction of warehouse on Old Pier "C". In progress.
Pictou.....	May 1960	Demolition of fire destroyed structures. In progress.
Port Hood.....	July 1959	Construction of rock mound breakwater to Port Hood Island. Completed.
Port Maitland.....	April 1959	Placing rock talus on seaward side of inshore end of detached breakwater. Completed.
Queensport.....	Dec. 1959	Construction of wharf. Completed.
Sandy Cove West.....	June 1960	Reconstruction of section of cribwork breakwater. Completed.
Saultnierville.....	Nov. 1960	Reconstruction and repairs to sections of wharf and dredging berths. In progress.
Seal Island.....	Nov. 1959	Repairs to west breakwater. Completed.
Short Beach.....	Feb. 1960	Repairs to retaining wall. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>NOVA SCOTIA—Concluded</i>		
Sydney.....	Sept. 1960	Reconstruction major portion wharf and facilities including new warehouse. In progress.
Upper Port Latour.....	Dec. 1958	Construction of wharf and approach and dredging mooring basin. Completed.
West Arichat.....	Jan. 1960	Wharf repairs. Completed.
West Arichat.....	Nov. 1959	Reconstruction of breakwater. Completed.
Westport.....	Mar. 1960	Reconstruction of outer section of wharf. Completed.
Weymouth North.....	Aug. 1960	Reconstruction of sections pilework wharf. In progress.
<i>NEW BRUNSWICK</i>		
Back Bay.....	Mar. 1961	Completing unfinished portion of wharf extension. In progress.
Bathurst.....	May 1960	Dredging of main channel and turning basin at public wharf. Completed.
Bathurst.....	Aug. 1960	Construction of steel sheet pile marginal wharf. Completed.
Burnt Church.....	Aug. 1960	Construction of retaining wall for the Indian Affairs Branch of the Department of Citizenship and Immigration. Completed.
Campbellton.....	June 1960	Dredging berthing areas at face of deep water wharf. Completed.
Cape Tormentine.....	Aug. 1960	Dredging four areas inside harbour for Department of Transport to accommodate C.N.R. ferry. Completed.
Caraquet.....	May 1960	Reconstruction of approach to Young's Wharf and repairs to pierhead. Completed.
Chance Harbour.....	Aug. 1959	Construction of cribwork extension to breakwater. Completed.
Curry's Cove.....	Mar. 1961	Enlarging approach of wharf to stabilize structure. In progress.
Curry's Cove.....	Sept. 1960	Dredging of mooring-basin. Completed.
Dalhousie.....	Sept. 1958	Construction of new wharf to provide a winter port. Completed.
Dalhousie.....	May 1960	Dredging a berth adjacent to the eastern side of the International Paper Co. Wharf. Completed.
Ingalls Head.....	June 1959	Construction of extensions to two existing breakwaters and paving southern breakwater and approach road. Completed.
Little Cape.....	June 1960	Construction of L-shaped cribwork extension to existing structure. Completed.
Little Lameque.....	June 1960	Repairs to wharf. Completed.
Lord's Cove.....	Mar. 1961	Repairs to wharf extension which was damaged by fire. In progress.
Lorneville.....	Feb. 1961	Completion of final stage of construction of rubble mound breakwater. In progress.
McEachern's Point.....	July 1960	Cribwork and pilework extension to wharf. Completed.
Middle Caraquet.....	Dec. 1960	Repairs to wharf which was damaged by fire. Completed.
Richardson.....	Aug. 1960	Construction of pilework wharf extension. Completed.
St. Andrews.....	Feb. 1960	Installation of an underground asbestos-cement pressure pipeline for Fisheries Research Board of Canada. Completed.
Saint John (Courtenay Bay)....	June 1958	Dredging of turning basin and channel adjacent to turning basin. Completed.
Saint John (Courtenay Bay)....	Sept. 1959	Dredging of Courtenay Bay channel adjacent to main channel. In progress.
Saint John (Courtenay Bay)....	Aug. 1960	Dredging of turning basin. Completed.
Saint John (Courtenay Bay)....	Oct. 1960	Repairs to rubble mound breakwater. Completed.
Saint John (Negro Point).....	May 1960	Further extension of breakwater towards Partridge Island. Completed.
Seal Cove.....	June 1960	Repairs to East and West breakwaters. Completed.
Stuarttown.....	Oct. 1960	Construction of pilework wharf extension. Completed.
White Head.....	Aug. 1960	Construction of pilework wharf and dredging berths. In progress.
Wilson's Beach.....	June 1960	Reconstruction, in cribwork, of wharf approach. Completed.
Wilson's Beach.....	Oct. 1960	Dredging of harbour area. Completed.
<i>QUEBEC</i>		
Aurigny.....	May 1960	Demolition and reconstruction of section of the existing breakwater. Completed.
Baie Comeau.....	May 1960	Placing armour stone along east side of wharf approach. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>QUEBEC—Continued</i>		
Baie Ste-Catherine (Anse au Portage).....	May 1960	Placing of steel revetment on concrete blocks. Completed.
Baie Ste-Catherine (Anse au Portage).....	Oct. 1960	Repairs to wharf. In progress.
Batiscan.....	Sept. 1959	Reconstruction of wharf headblock. Completed.
Cap-aux-Meules.....	Oct. 1960	Construction of freight shed. Completed.
Cap-de-la-Madeleine (St. Marthe).....	July 1960	Repairs to retaining walls. Completed.
Cap-de-la-Madeleine.....	Dec. 1959	Repairs to retaining wall west of Government wharf. Completed.
Cap Rouge.....	July 1960	Construction of retaining wall. Completed.
Cedarville.....	Nov. 1960	Construction of wharf. Completed.
Champlain.....	June 1960	Construction of a retaining wall. Completed.
Chandler.....	Jan. 1960	Test blasting of a quarry to find suitable stone for proposed rubble mound breakwater. Completed.
Chicoutimi Nord.....	Sept. 1960	Construction and repairs of stone retaining walls. Completed.
Contrecoeur.....	Nov. 1960	Repairs to four retaining walls. Completed.
Deschaillons.....	July 1960	Construction of stone retaining wall. Completed.
Dorion.....	Sept. 1960	Dredging of shoals in Ottawa River. Completed.
Etang du Nord.....	April 1960	Contract terminated shortly after work commenced due to objections raised to its location.
Entry Island.....	Aug. 1959	Repairs to slipway and construction of extension to wharf with wavebreak along seaward side. Completed.
Forestville.....	Mar. 1961	Repairs to wharf and approach. In progress.
Kegaska.....	June 1960	Construction of a wharf. Completed.
La Tuque.....	Aug. 1960	Removal of old wharf and reconstruction. Completed.
Les Ecureuils.....	Sept. 1960	Construction of retaining wall with stone filled wire baskets. Completed.
Les Escoumains.....	Oct. 1959	Reconstruction of mid-section of wharf with steel sheet piling. Completed.
Matane.....	May 1960	Dredging in harbour. Completed.
Mont-Laurier.....	Mar. 1960	Construction of a wharf. Completed.
Natashquan.....	Sept. 1960	Wharf repairs and construction of an enlargement. In progress.
Newport Point.....	Oct. 1959	Construction of wharfage facilities. Completed.
Newport Point.....	Feb. 1961	Construction of stone rip-rap wall. In progress.
Nicolet River.....	Sept. 1959	Dredging in Nicolet River. Completed.
Petite Rivière Est.....	July 1960	Demolition and reconstruction of existing jetty. Completed.
Petit Saguenay.....	Dec. 1959	Construction of a deep water wharf. Completed.
Pointe-au-Père.....	Aug. 1959	Construction of winter port to provide year-round service between the North and South shores of the St. Lawrence. In progress.
Pointe-au Pic.....	Sept. 1960	Repairs to wharf. In progress.
Pointe Basse.....	July 1960	Demolition and reconstruction of a section of the existing breakwater. Completed.
Port St. François.....	Aug. 1960	Construction of protection wall and repairs to existing wall. Completed.
Quebec (Queen's Wharf).....	Oct. 1958	Construction of extension to wharf and adjacent basin for use of pilot boats. Completed.
Richelieu River (Ash Island)...	June 1959	Dredging to remove 4 shoals between Naylor Point and U.S. Border. Completed.
Rivière-du-Loup.....	Nov. 1959	Widening of wharf, enlarging of approach, relocation of movable slip, supporting of hoisting apparatus and construction of new retaining wall in slip opening. Completed.
Ste-Flavie.....	Jan. 1960	Repairs to wharf. Completed.
St-Jean, I.O.....	June 1960	Construction of retaining wall. Completed.
St-Laurent, I.O.....	June 1960	Construction of retaining wall. Completed.
St-Michel des Saints.....	Sept. 1960	Construction of a cribwork tourist wharf. Completed.
St-Ours.....	Oct. 1959	Construction of retaining wall along the East shore of Richelieu River. Completed.
St-Romuald.....	July 1960	Construction of concrete retaining wall. Completed.
St-Romuald (New Liverpool)...	Aug. 1960	Construction of concrete retaining wall. Completed.
Ste-Rose du Nord.....	Sept. 1960	Construction of wharf extension. In progress.
St-Vallier.....	Sept. 1959	Construction of stone embedded in concrete retaining wall. Completed.
Sept-Iles.....	June 1958	Construction of new wharf with transit shed to provide adequate loading facilities. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>QUEBEC—Concluded</i>		
Sept-Iles.....	Oct. 1959	Construction of asphalt pavement on the Point-aux-Basques Wharf. Completed.
Sept-Iles.....	Oct. 1960	Placing stone along approach to Town Wharf and rectification works. Completed.
Sept-Iles.....	Feb. 1961	Construction of a stone mound and fill between Pointe-aux-Basques Wharf and Mgr. Blanche Street Wharf. In progress.
Sorel.....	June 1960	Dredging in front of Sorel Harbour. Completed.
Tadoussac (Anse à L'Eau).....	Feb. 1961	Repairs to wharf and raising hoisting apparatus. In progress.
Trois-Pistoles.....	Oct. 1960	Repairs to wharf. Completed.
Trois Rivières (Point-aux-Ormes).....	Sept. 1959	Construction of a stone approach and cribwork wharf-head. Completed.
Val d'Or Island.....	Nov. 1960	Construction and repair of a retaining wall. Completed.
Yarennas.....	Aug. 1960	Wharf reconstruction. Completed.
Yamachiche River.....	Oct. 1958	Dredging in Lake St. Peter and Yamachiche River to widen and deepen the channel and to provide a turning basin near the public wharf. Completed.
<i>ONTARIO</i>		
Amherstburg.....	Nov. 1959	Construction of shore protection on east side of channel. Completed.
Barrie.....	Nov. 1959	Construction of extension to tourist wharf. Completed.
Bayfield.....	May 1960	Construction of steel sheet pile retaining wall. Completed.
Bayfield.....	June 1960	Dredging in front of new retaining wall. Completed.
Belle River.....	June 1960	Reconstruction of training wall. Completed.
Belleville.....	Oct. 1960	Reconstruction of wharf. In progress.
Burlington Beach.....	Sept. 1959	Construction of Burlington Beach Wharf (Stage 1). Completed.
Cataraqui Bay.....	Nov. 1960	Dredging approach and turning basin at Canadian Steamships Line Dock. In progress.
Cedar Point.....	Mar. 1961	Construction of rubble mound breakwater and concrete deck on tourist wharf. In progress.
Chatham.....	June 1960	Reconstruction of retaining wall. In progress.
Cobourg.....	May 1960	Dredging approaches and inner harbour. Completed.
Coldwater River.....	June 1960	Redredging two areas. Completed.
Dredging Plant.....	Nov. 1960	Drydocking of plant and hull and machinery repairs to Dredge "P.W.D. No. 116" and Tug "Hercules". Completed.
Fort William.....	June 1960	Dredging of Mission River Entrance Channel. Completed.
Fort William.....	June 1959	Dredging in areas "A" and "B" of the Kaministiquia River. Completed.
Goderich.....	Sept. 1960	Installation of steel rubbing wale and guardrails. Completed.
Hamilton.....	July 1959	Dredging from the new Hamilton Harbour Commission dock at Ship Street along the Stelco Ore Dock No. 2 to deep water in the harbour. Completed.
Hamilton.....	Nov. 1959	Dredging in connection with Burlington Beach Wharf. Completed.
Hamilton.....	June 1960	Construction of Burlington Beach Wharf—(Stage 3). In progress.
Hamilton.....	July 1959	Dredging easterly approach channel to new Hamilton Harbour Commission Terminal No. 3. Completed.
Hamilton.....	June 1959	Construction of Strathearne Ave. Wharf (Stage 3). Completed.
Hawkestone.....	Sept. 1960	Construction of timber cribwork tourist wharf extension. Completed.
Johnstown.....	July 1960	Construction of shed. Completed.
Kincardine.....	Sept. 1959	Dredging in entrance channel from the outer end of the piers. Completed.
Kingsville.....	Aug. 1960	Dredging at harbour entrance. Completed.
Lakehead.....	Oct. 1960	Harbour Terminal Construction, installation of water mains to site. Stage 8. In progress.
Lakehead.....	June 1960	Harbour Terminal Construction, Dredging, reclamation and wharf construction. Stage 3. In progress.
Lakehead.....	Sept. 1959	Dredging of area adjacent to wharf, Harbour Terminal construction (Stage 2). Completed.
Lakehead.....	Jan. 1960	Harbour Terminal Construction—structures, services and finishes. Stage 5. In progress.
Lakehead.....	Feb. 1961	Harbour Terminal Construction—Main Street access bridge. Stage 6. In progress.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>ONTARIO—Concluded</i>		
Leamington.....	July 1960	Wharf enlargement. Completed.
Little Current.....	Mar. 1961	Renewal of main wharf deck and reconstruction of marginal wharf. In progress.
Morrisburg.....	Nov. 1960	Construction of wharf. In progress.
North Bay.....	Jan. 1961	Reconstruction of approach superstructure, widening landing head, and repairs to freight shed. In progress.
Oshawa.....	June 1960	Dredging approach channel, entrance, and turning area. Completed.
Owen Sound.....	Aug. 1960	Waling replacement—Stage 2. Completed.
Owen Sound.....	Mar. 1961	Waling replacement—Stage 3. In progress.
Owen Sound.....	Feb. 1961	Construction of concrete retaining wall. In progress.
Parry Sound.....	May 1960	Dredging in front of Smelter Wharf. Completed.
Pelee Island.....	June 1960	Repairs to West Wharf. Completed.
Port Arthur.....	June 1960	Dredging in main entrance channel and main harbour centre. In progress.
Port Burwell.....	Sept. 1959	Reconstruction of northerly section of East Harbour Wall. Completed.
Port Burwell.....	Sept. 1960	Maintenance dredging of two sections of entrance channel. Completed.
Port Dover.....	Feb. 1961	Repairs to and reconstruction of two sections of West Pier. In progress.
Port Hope.....	April 1960	Dredging entrance channel, outer harbour and East Slip. Completed.
Port Maitland.....	Mar. 1960	Repairs to northerly section of West Pier. In progress.
Port Maitland.....	Aug. 1959	Dredging of channel in the Grand River. In progress.
Port Rowan.....	Oct. 1960	Reconstruction of wharf superstructure. In progress.
Port Stanley.....	Feb. 1960	Reconstruction of section of East Harbour Wall. Completed.
Port Stanley.....	Aug. 1960	Maintenance dredging in approach channel, outer harbour, inner harbour and turning basin. Completed.
Rockport.....	Feb. 1961	Construction of extension to wharf for Department of National Revenue. In progress.
Rondeau (Erieau).....	Aug. 1960	Dredging in entrance channel. Completed.
Rondeau (Erieau).....	Feb. 1961	Repairs to East Pier. In progress.
Sault Ste. Marie.....	Aug. 1959	Pressure grouting of wharf perimeter and repairs to freight shed. Completed.
Tobermory.....	May 1960	Replacement of landing piers. Completed.
Toronto.....	July 1959	Construction of extension to Toronto Island Airport Runway (Stage 2) for Department of Transport. Completed.
Toronto.....	April 1960	Construction of extension to Toronto Island Airport Runway (Stage 3), for Department of Transport. Completed.
Toronto.....	May 1960	Dredging central channel along Ship Channel, together with turning basin. Completed.
Toronto.....	July 1960	Annual maintenance dredging of approaches to Eastern Entrance, together with enlargement of main turning area in harbour. Completed.
Wallaceburg.....	Aug. 1960	Construction of wharf with transit shed and dredging of turning basin. In progress.
Walpole Island.....	July 1960	Construction of two breakwaters and dredging. In progress.
Wheatley.....	Dec. 1959	Reconstruction of harbour wall on east side. Completed.
Whitby.....	Sept. 1959	Dredging approaches and inner harbour. Completed.
Whitby.....	Oct. 1959	Construction of West Protection rubble mound breakwater. Completed.
Whitby.....	June 1960	Reconstruction of East Revetment Wall. Completed.
<i>MANITOBA</i>		
Gimli.....	Jan. 1960	Construction of extension to wharf. Completed.
Matheson Island Landing.....	June 1960	Construction of wharf. Completed.
Selkirk (Shipyard).....	Aug. 1960	Construction of extension to wharf. Completed.
The Pas.....	Nov. 1959	Construction of "L"-shaped extension to wharf and a rock filled approach. In progress.
Fort Prince of Wales (Churchill)	Sept. 1960	Excavation of channel for Department of Northern Affairs and National Resources. In progress.
<i>ALBERTA</i>		
Cambridge Bay, NWT.....	May 1960	Construction of a pile bent wharf. Completed.
Dredging Plant.....	July 1960	Fabrication of a new 100 cubic yard dump scow for Dredge 251.
Ft. Simpson, NWT.....	Sept. 1960	Construction of a floatin'g wharf. Completed.
Hay River, NWT.....	July 1960	Construction of a warehouse and machine shop. Completed.
Inuvik, NWT.....	July 1960	Construction of floating wharves. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Concluded

Location	Date work began	Description
BRITISH COLUMBIA		
Alliford Bay.....	July 1960	Construction of approach and float. Completed.
Bella Coola.....	July 1960	Removal of existing log float, extensions to wharf, shed, breakwater and reconstruction of log float. Completed.
Bonson Road.....	Oct. 1960	Reconstruction of wharf and float. Completed.
Browning Passage.....	July 1960	Dredging Pender Island Canal. Completed.
Campbell River.....	Feb. 1961	Construction of extension to breakwater. In progress.
Campbell River.....	Aug. 1960	Maintenance repairs to decking, etc. Completed.
Chilliwack River.....	Dec. 1960	Dredging a channel at the junction of the Fraser River. Completed.
Comox.....	Nov. 1960	Maintenance repairs to wharf. Completed.
Dredging Plant.....	June 1960	Annual Overhaul to Dredge 303. Completed.
Dredging Plant.....	June 1960	Annual Overhaul to Dredge 322. Completed.
Dredging Plant.....	Feb. 1961	Construction of Dump Scow. In progress.
Dredging Plant.....	Dec. 1959	Construction of Hopper Dredge. In progress.
Dredging Plant.....	Feb. 1961	Construction of Survey Launch. In progress.
Esperanza.....	Aug. 1960	Construction of wharf. Completed.
Esquimalt (Jetty "C").....	Aug. 1959	Reconstruction, removal and repairs to existing floats and superstructure at Jetty "C" for Department of National Defence. Completed.
Fraser River (Spaghetti Point).....	Feb. 1959	Construction of dams. Completed.
Fraser River, Channels 1, 2, 3....	Aug. 1960	Dredging in Fraser River at Steveston Cut, Tillbury Range, Annville Channel, Searle Elevator, and Pacific Coast Terminals. Completed.
Fraser River at New Westminster.....	Dec. 1960	Dredging four areas at the wharf and floats. Completed.
Fraser River, Nicomen Slough.....	Mar. 1961	Dredging a towing channel. In progress.
Fraser River, Sumas to Hope....	1960-1961	Maintenance dredging to remove gravel bars from Sumas to Hope. Completed.
Gibsons Landing.....	Mar. 1961	Repairs to existing wharf. In progress.
Harrison Lake.....	Mar. 1960	Driftwood removal. Completed.
Kanaka Creek.....	Feb. 1961	Replacement of existing fishermen's landing. Completed.
Mission.....	Aug. 1960	Reconstruction of wharf. Completed.
Nanaimo Assembly Wharf.....	May 1960	Electrical rehabilitation of crane. Completed.
Nanaimo Assembly Wharf.....	Oct. 1960	Construction of lunch room and locker building. Completed.
Nanaimo (Biological Station)....	Feb. 1960	Construction of electrical distribution system for Department of Fisheries. In progress.
Nanaimo (Pacific Biological Station).....	Jan. 1959	Construction of salmon tanks for Department of Fisheries, Fisheries Research Board of Canada. Completed.
Nanaimo.....	Mar. 1961	Reconstruction of assembly wharf. In progress.
New Brighton.....	Mar. 1961	Repairs to wharf. Completed.
New Westminster (Fisheries Station).....	Feb. 1961	Construction of retaining wall for Department of Fisheries. In progress.
New Westminster Railway Bridge.....	April 1960	Construction of superstructure repairs on railway bridge. Completed.
New Westminster Railway Bridge.....	June 1960	Painting of railway bridge. Completed.
Patricia Bay.....	June 1960	Repairs to Jetty for Department of National Defence. Completed.
Porpoise Bay.....	June 1960	Dredging of two areas and the construction of a gravel ramp. Completed.
Port Alberni (Argyle Street)....	Jan. 1961	Repairs to wharf. Completed.
Port Alberni (Assembly Wharf)....	Mar. 1960	Reconstruction of assembly wharf. Completed.
Port Alberni (Fishing Harbour)....	June 1960	Construction of wharf, approach and dredging. Completed.
Port Simpson.....	June 1960	Construction of extension to existing wharf. Completed.
Renata.....	Oct. 1960	Reconstruction of wharf. Completed.
Shoal Harbour.....	July 1960	Construction of breakwater. Completed.
Squamish.....	Feb. 1961	Dredging of Old Manquan River Channel. In progress.
Stuart Island.....	Aug. 1960	Construction wharf, approach, floats, shed and gangway. Completed.
Tofino (4th Street).....	Jan. 1960	Construction of boat harbour and floats. Completed.
Turkey Head.....	Aug. 1959	Construction of rock mound breakwater to extend from Turkey Head on Oak Bay towards Mary Tod Island to close this channel. Completed.
Ucluelet West.....	April 1960	Repairs to wharf. Completed.
Vancouver.....	Feb. 1960	Construction of a wharf, shed and floats. Completed.
Westview (Boat Harbour).....	Dec. 1959	Construction of rock breakwater. Completed.
Westview.....	June 1960	Dredging in boat harbour. Completed.
White Rock.....	Feb. 1960	Construction of breakwaters and connecting two breakwaters across wharf face. Completed.
Wiah Point.....	May 1960	Construction of log floats. Completed.

DREDGING BY DEPARTMENTAL DREDGES, 1960-61

<i>Dredge No.</i>	<i>Location</i>	<i>Total Cubic Yards</i>
NEWFOUNDLAND		
22	Long Pond (Manuels), Twillingate.....	73,872
400	Bell Island, St. Johns, Little Merasheen, Woody Island, Aguathuna, Gillams, Long Pond (Manuels).....	25,655
PRINCE EDWARD ISLAND		
Pownal No. 2	Charlottetown, Wood Islands, Victoria.....	19,050
10	Charlottetown, Montague.....	42,735
12	Bay Fortune (Trials of New Dredge).....	6,564
20	Wood Island, Caribou N.S., Alberton, Pictou N.S.....	52,000
25	Skinner's Pond, West Point, Egmont Bay, Tignish, Charlottetown.....	19,346
NOVA SCOTIA		
15	Cross Island, Upper Blandford, Indian Point, Mariott's Cove.....	17,500
16	Pinkney's Point, Yarmouth.....	5,870
18	Murphy's Pond, Port Hood, Port Hood Island, Creignish, Pondville, Petit de Grat, St. Marys, Janvrin's Harbour, Arichat.....	11,612
19	Sheet Harbour, Three Fathom Harbour, Graff Beach.....	15,771
21	Yarmouth.....	186,269
NEW BRUNSWICK		
23	Ste. Marie-sur-Mer, Neguac, Middle Caraquet, Grande Anse, Cape Tormentine.....	33,350
24	Richibucto Cape, Chockfish, Cocagne Bar, Little Shippigan, Miscou.....	40,710
QUEBEC		
125	Hospital Bay, Old Harry, Grande Entree.....	24,773
128	Les Mechins, Marsoui, St. Yvon, Anse au Griffon, Cap des Rosiers, Ruisseau LeBlanc, Bonaventure.....	24,910
129	Havre Aubert, Cap aux Meules, Gros Cap, Pointe Basse...	64,200
130	Lauzon, Baie Comeau, Baie de Moulin, Forestville, Isle D'Orleans.....	150,011
ONTARIO		
116	Port Burwell.....	169,964
MANITOBA		
201	Red River Mouth.....	51,936
205	Selkirk Slough, Gull Island, Jackhead Harbour, Little Tamarac Island, Hnausa, Victoria Beach.....	24,967
210	Whitefish Point, Winnipegosis, Channel Island, Whiskey Jack, Wade Point.....	10,032
ALBERTA		
250	Athabaska River Delta, Fort Chipewyan, Athabaska River	81,664
251	Providence Ferry Crossing, Beaver Crossing.....	22,580
252	Athabaska River Delta, Athabaska River, Waterways, McMurray Snye.....	12,314
253	Hay River, Beaver Lake.....	60,888
324	Tuktoyaktuk.....	41,825
BRITISH COLUMBIA		
303	Steveston, New Westminster, North Vancouver.....	657,916
311	Arrow Park, Nakusp, Halfway, Burton.....	51,404
322	Fraser River.....	1,206,950

BRIDGES

Maintenance and repairs were carried out during the year to the following bridges on behalf of the Development Engineering Branch:

Clair, N.B.; Edmundston, N.B.; St. Leonard, N.B.; Berthierville Bridge, P.Q.; Calumet-Bryson, P.Q.; Chapeau Bridge, P.Q.; Notre Dame du Nord Bridge, P.Q.; Papineauville Bridge, P.Q.; DesJoachim's Interprovincial Bridge, Ont. and P.Q.; Ottawa City Bridges, Ont. and P.Q.; Perley Bridge (Interprovincial), Ont. and P.Q.; Pembroke-Allumette Island Interprovincial Bridge, Ont. and P.Q.; Portage du Fort Interprovincial Bridge, Ont. and P.Q.; Burlington Channel, Ont.; Kingston La Salle Causeway, Ont.; Shellmouth, Man.; New Westminster Railway Bridge, B.C.

DAMS

The following dams were in operation during the year:

Fryer's Island Dam; French River Dam System, consisting of Big Chaudiere, Little Chaudiere, New Portage Dams; Latchford Dam; Temiskaming Dams; St. Andrew's Lock and Dam; Lewes River Dam.

DRY DOCKS

The Champlain Dry Dock was occupied for 282 boat-days by 40 ships for a total tonnage of 240,942 tons.

The Lorne Dry Dock was occupied for 241 boat-days by 20 ships for a total tonnage of 61,889 tons.

The Kingston Dry Dock was occupied for 246 days by 26 vessels of a total tonnage of 36,839 tons.

The Selkirk Marine Repair Slip was occupied for 199 boat-days by 14 ships of a tonnage of 1,256.5 tons.

Esquimalt Dry Dock, Esquimalt, B.C.—36 vessels were docked for repairs, cleaning and painting; the total tonnage being 306,426 tons. The dock was occupied 180 days including Sundays and holidays. 130 vessels were moored at the landing wharf and jetty; the total number of days of occupancy being 695 days and the total tonnage 252,774 tons.

STATEMENT OF FERRY LICENCES IN FORCE DURING THE FISCAL YEAR ENDING MARCH 31, 1961

Alfred, Ont.—Montebello, Que.....	\$ 15.00
Clarence, Ont.—Thurso, Que.....	20.00
Cumberland, Ont.—Masson, Que.....	10.00
La Passe, Ont.—Fort Coulonge, Que.....	10.00
Lefaiivre, Ont.—Fassett, Que.....	30.00
Niagara Falls, Ont.—Niagara Falls, N.Y.....	25.00
Niagara-on-the-Lake, Ont.—Youngstown, N.Y.....	25.00
Port Lambton, Ont.—Roberts Landing, Mich.....	25.00
Prescott, Ont.—Ogdensburg, N.Y.....	1.00
Quyon, Que.—Moore Landing, Ont.....	125.00
Rainy River, Ont.—Beaudette, Minn.....	1.00
Rockcliffe, Ont.—Gatineau Point, Que.....	25.00
St. Andrews, N.B.—Robbinston, Maine.....	5.00
Sand Point, Ont.—Norway Bay, Que.....	10.00
Sault Ste. Marie, Ont.—Sault Ste. Marie, Mich.....	100.00
Sombra, Ont.—Marine City, Mich.....	1.00
Stag Island, Ont.—Marysville, Mich.....	25.00
Walpole Island, Ont.—Algonac, Mich.....	25.00

BUILDING CONSTRUCTION BRANCH

E. A. Gardner, Chief Architect

Location	Date contract awarded	Details
NEWFOUNDLAND		
Glovertown.....	Mar. 1961	R.C.M.P. Detachment Quarters—Supply and installation of generators. In progress.
Glenwood.....	Dec. 1960	New Post Office Building. In progress.
Harbour Breton.....	Feb. 1961	R.C.M.P. Detachment Quarters—New generator house and equipment. In progress.
Lewisporte.....	Mar. 1961	Federal Building—Addition to provide accommodation for Post Office. In progress.
Norris Arm.....	Nov. 1960	New Post Office Building. In progress.
Placentia.....	Mar. 1961	R.C.M.P. Detachment Quarters addition. In progress.
Twillingate.....	Mar. 1961	R.C.M.P. Detachment Quarters—supply and installation of generators. In progress.
PRINCE EDWARD ISLAND		
Charlottetown.....	June 1960	Federal Building. Improvements to over-fire jets in the boilers. Completed November, 1960.
Summerside.....	Aug. 1960	New R.C.M.P. Detachment Quarters. Completed January, 1961.
NOVA SCOTIA		
Bras D'Or.....	Mar. 1961	New Post Office Building. In progress.
Chester.....	Mar. 1961	New R.C.M.P. Detachment Quarters. In progress.
Dartmouth.....	Jan. 1961	New Oceanographic and Hydrographic Research Station for Mines and Technical Surveys. In progress.
Eskasoni.....	July 1960	New two classroom school for the Department of Citizenship and Immigration. Completed February 1961.
Halifax.....	Mar. 1961	New Inspection Laboratory for the Department of Fisheries. In progress.
Halifax.....	April 1960	Demolition of Old Customs House for use of site. Completed November, 1960.
Halifax.....	Aug. 1960	Federal Building addition and alterations to accommodate the Post Office and Fisheries Departments. In progress.
Mabou.....	Dec. 1960	New Post Office Building. In progress.
New Glasgow.....	May 1960	New Federal Building to accommodate Departments of National Revenue, Fisheries, Public Works, Unemployment Insurance Commission, National Film Board, and Post Office. In progress.
Whitney Pier.....	Dec. 1960	New Post Office Building. In progress.
Whyecomagh.....	July 1960	New One Classroom School for Citizenship and Immigration. Completed March, 1961.
Whyecomagh.....	April 1960	New Post Office Building. Completed September, 1960.
Windsor.....	May 1960	New Federal Building to accommodate Post Office, National Revenue, Agriculture, and U.I.C. Completed March, 1961.
NEW BRUNSWICK		
Bath.....	Jan. 1961	New Post Office Building. In progress.
Doaktown.....	Feb. 1961	New Post Office Building. In progress.
Fredericton.....	Dec. 1960	New Headerhouse and Tunnel for Department of Agriculture. In progress.
Moncton.....	Dec. 1960	Addition and Alterations to Federal Building, to accommodate Post Office, National Revenue, Transport, Citizenship and Immigration, Agriculture, and Unemployment Insurance Commission. In progress.
Moncton.....	April 1960	Improvements to R.C.M.P. Shooting Range ventilation system. Completed September, 1960.
McAdam.....	Feb. 1961	New R.C.M.P. Detachment Quarters. In progress.
St. Stephen.....	Mar. 1961	New R.C.M.P. Detachment Quarters. In progress.
Saint John.....	Sept. 1960	New Stores and Administration Building for Department of Transport. In progress.
Saint John.....	May 1960	New Shops Building for Department of Transport. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
NEW BRUNSWICK—Concluded		
Saint John.....	April 1960	Demolition of Old Customs Building for use of site. Completed January, 1961.
St. Andrews.....	July 1960	New Workshop Building for Department of Fisheries. Completed January, 1961.
QUEBEC		
Calumet.....	Dec. 1960	New Post Office Building. In progress.
Caughnawaga.....	Dec. 1960	New Teacher's Residence for the Department of Citizenship and Immigration. In progress.
Clermont.....	Nov. 1960	New Post Office Building. Completed March, 1961.
Delisle.....	Feb. 1961	New Post Office Building. In progress.
Ferme-Neuve.....	Feb. 1961	New Post Office Building. In progress.
Fort George.....	July 1960	Installation of water supply system to service Residential School and Ancillary Buildings for the Department of Citizenship and Immigration. Completed June, 1960.
Godbout.....	Oct. 1960	New Post Office Building. Completed March, 1961.
Hudson Heights.....	June 1960	New Post Office Building. Completed December, 1960.
Hudson.....	June 1960	New Post Office Building. Completed November, 1960.
Ivuyivik, Payne Bay, Sugluk, Wakeham Bay.....	Feb. 1961	Four new Medical Station Buildings for the Department of National Health and Welfare. In progress.
Labelle.....	Jan. 1961	New Post Office Building. In progress.
Les Escoumains.....	Dec. 1960	New Post Office Building. In progress.
Lanoraie.....	Dec. 1960	New Post Office Building. In progress.
L'Isletville.....	Nov. 1960	New Post Office Building. Completed February, 1961.
Levis.....	Oct. 1960	New Piggery Quarantine Station for Department of Agriculture. Completed January, 1961.
Laval des Rapides.....	Oct. 1960	New Post Office Building. In progress.
Montreal.....	Mar. 1961	Cleaning, pointing and waterproofing of masonry for Customs Building. In progress.
Montreal.....	Mar. 1961	Improvements to basement and first floor of Postal Terminal Building. In progress.
Montreal.....	Feb. 1961	New Veterans Affairs Building. In progress.
Montreal.....	Feb. 1961	Installation of cooling for shooting stage for the National Film Board Building. In progress.
Montreal.....	Jan. 1961	Customs Examining Warehouse improvements to No. 2 Boiler. In progress.
Montreal.....	Dec. 1960	Customs House, improvements generally. In progress.
Montreal.....	Dec. 1960	Rosemont Postal Station—new addition and improvements. In progress.
Montreal.....	Dec. 1960	Queen Mary Veterans Hospital, supply and installation of new heating boilers, for D.V.A. In progress.
Montreal.....	Nov. 1960	National Revenue Building, supply and installation of metal office partitions. In progress.
Montreal.....	Sept. 1960	Postal Terminal Building, repairs and improvements, and additional conveyor chutes. In progress.
Montreal.....	Aug. 1960	Postal Terminal Building, repairs and improvements including installation of electronic mail sorter. Completed October, 1960.
Montreal.....	July 1960	Public Works Building, supply and installation of a new freight elevator. In progress.
Montreal.....	June 1960	Place D'Armes Postal Station, supply and installation of new postal counter and fittings. In progress.
Mistassini.....	Dec. 1960	New Post Office Building. In progress.
Normetal.....	Dec. 1960	New Post Office Building. In progress.
Nouvelle.....	Nov. 1960	New Post Office Building. Completed March, 1961.
Oka.....	Mar. 1961	New Federal Building to accommodate Post Office, Citizenship and Immigration, and National Health and Welfare. In progress.
Orms town.....	Dec. 1960	New Post Office Building. In progress.
Quebec.....	June 1960	New Postal Terminal Building to accommodate Post Office, and National Revenue Departments. In progress.
Robertsonville.....	Jan. 1961	New Post Office Building. In progress.
Rouyn.....	July 1960	Federal Building, new addition to accommodate Post Office, National Revenue, Agriculture, and National Film Board. In progress.
Shawbridge.....	Dec. 1960	New Post Office Building. In progress.
Sept Iles.....	Nov. 1960	New Federal Housing for Federal Government employees. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>QUEBEC—Concluded</i>		
Schefferville.....	May 1960	New Federal Building to accommodate Post Office, and National Health and Welfare. In progress.
Senneterre.....	April 1960	New Federal Building to accommodate the Post Office. Completed November, 1960.
St. Pie de Bagot.....	Jan. 1961	New Post Office Building. In progress.
St. Leonard d'Aston.....	Jan. 1961	New Post Office Building. In progress.
St. Leon le Grand.....	Jan. 1961	New Post Office Building. In progress.
St. Damien de Buckland.....	Dec. 1960	New Post Office Building. In progress.
St. Germain de Grantham.....	Dec. 1960	New Post Office Building. In progress.
St. Lin des Laurentides.....	Dec. 1960	New Post Office Building. In progress.
St. Anne de la Perade.....	Dec. 1960	New Post Office Building. In progress.
St. Michel-des-Saints.....	Dec. 1960	New Post Office Building. In progress.
St. Basil.....	Nov. 1960	New Post Office Building. Completed February, 1961.
Ste. Claire.....	Nov. 1960	New Post Office Building. Completed February, 1961.
St. Regis.....	Sept. 1960	Three Classroom addition to school for Citizenship and Immigration. In progress.
St. Pascal de Kamouraska.....	June 1960	Addition to Federal Building to accommodate the Post Office. Completed October, 1960.
Thurso.....	Dec. 1960	Addition to Post Office Building. In progress.
Val Briant.....	Nov. 1960	New Post Office Building. Completed March, 1961.
<i>ONTARIO</i>		
<i>OTTAWA</i>		
Booth Street.....	Jan. 1961	New addition and improvements to Test Pit. In progress.
Booth Street.....	Nov. 1960	New addition to Buildings H and J and new oil storage tank. In progress.
Central Experimental Farm...	Mar. 1961	New addition and improvements to Geophysical Building to accommodate the Department of Agriculture. In progress.
Confederation Heights.....	Mar. 1961	P.B.X. Building, improvements to heating mains. In progress.
Tunney's Pasture.....	Feb. 1961	New addition to Central Heating Plant and general improvements. In progress.
Confederation Heights.....	Dec. 1960	Control House, supply and installation of racks, fences, etc. In progress.
City.....	Jan. 1961	Vimy Building, major alterations and repairs. In progress.
Sussex Drive.....	Sept. 1960	N.R.C. Building, major repairs and new oil burning equipment. In progress.
Montreal Road.....	Sept. 1960	Forest Products Laboratory, major repairs and installation of air conditioning system. In progress.
City.....	Aug. 1960	Rideau Hall, improvements to cold water mains. Completed October, 1960.
City.....	Aug. 1960	Lorne Building, major repairs and new emergency generator plant. Completed March, 1961.
Central Experimental Farm...	Aug. 1960	Research Laboratory, major alterations and repairs. Completed January, 1961.
Confederation Heights.....	Aug. 1960	New Radiation Protection Building for National Health and Welfare. Completed February, 1961.
Overbrook.....	June 1960	RCMP Headquarters Building, miscellaneous improvements. Completed March, 1961.
Confederation Heights.....	May 1960	DPW Laboratory Building, supply and installation of a concrete sample freeze-thaw unit. Completed September, 1960.
City.....	April 1960	No. 2 Temporary Building, improvements to offices. Completed June, 1960.
Montreal Road.....	April 1960	New Applied Physics Building for National Research Council. In progress.
Angus.....	Dec. 1960	New Post Office Building. In progress.
Armstrong.....	Dec. 1960	New Post Office Building. In progress.
Aurora.....	Sept. 1960	New addition to Post Office Building. Completed December, 1960.
Agincourt.....	Sept. 1960	Federal Building, improvements to driveway and retaining wall. Completed January, 1961.
Balmertown.....	Dec. 1960	New Post Office Building. In progress.
Burgessville.....	Nov. 1960	New Post Office Building. In progress.
Brantford.....	July 1960	New Two Classroom School for Citizenship and Immigration. In progress.
Collingwood.....	Mar. 1961	Federal Building, major alterations and repairs. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>ONTARIO—Concluded</i>		
Carp.....	Nov. 1960	New Post Office Building. Completed February, 1961.
Courtwright.....	Nov. 1960	New Post Office Building. In progress.
Chesterville.....	Sept. 1960	New Post Office Building. In progress.
Caledonia.....	May 1960	New Post Office Building. Completed December, 1960.
Downsview.....	Dec. 1960	New Federal Building to accommodate Post Office Department. In progress.
Fort Francis.....	Jan. 1961	New Dormitory, Chapel, and 3 classroom school for Citizenship and Immigration. In progress.
Finch.....	Dec. 1960	New Post Office Building. In progress.
Falconbridge.....	Dec. 1960	New Post Office Building. Completed March, 1961.
Port Carling.....	Dec. 1960	New Post Office Building. In progress.
Gravenhurst.....	Oct. 1960	New addition and alterations to Federal Building to accommodate Post Office Department. In progress.
Heron Bay.....	July 1960	New school and residence for Citizenship and Immigration. Completed March, 1961.
Ignace.....	Dec. 1960	New Post Office Building. In progress.
Ingersoll.....	Dec. 1960	New Federal Building to accommodate Post Office, National Revenue, Unemployment Insurance Commission and National Defence. In progress.
Kirkland Lake.....	Feb. 1961	Federal Building, extensive alterations to accommodate the Post Office Department. In progress.
Kingston.....	Jan. 1961	New RCMP Detachment Quarters. In progress.
London.....	Aug. 1960	New Postal Terminal Building to accommodate Post Office and Veterans Affairs. In progress.
Lakeview.....	Aug. 1960	New School and Residence buildings for Citizenship and Immigration. In progress.
Mobert.....	July 1960	New addition to school and new residence for Citizenship and Immigration. In progress.
Milton West.....	Oct. 1960	New addition to Federal Building to accommodate Post Office Department. In progress.
Moose Factory.....	Aug. 1960	New residential buildings for Citizenship and Immigration. Completed December, 1960.
Moose Factory.....	Oct. 1960	Repairs to residence from fire damage. Completed December, 1960.
Manotick.....	April 1960	New Post Office Building. Completed December, 1960.
McIntosh.....	Nov. 1960	New Staff Residence for Citizenship and Immigration. In progress.
New Hamburg.....	Dec. 1960	New Post Office Building. In progress.
Petawawa.....	Mar. 1961	New addition to laboratory, greenhouse and generator room for Department of Forestry. In progress.
Plantagenet.....	Dec. 1960	New Post Office Building. In progress.
Port Credit.....	Nov. 1960	New addition to Federal Building to accommodate Post Office. In progress.
Russell.....	Dec. 1960	New Post Office Building. In progress.
Swastika.....	Dec. 1960	New Post Office Building. Completed March, 1961.
South River.....	Nov. 1960	New Post Office Building. Completed March, 1961.
Sioux Lookout.....	May 1960	New Residence Buildings for National Health and Welfare. In progress.
St. Catharines.....	Mar. 1961	New addition and renovations to Federal Building to accommodate Post Office. In progress.
Thornsdale.....	Dec. 1960	New Post Office Building. In progress.
Toronto.....	July 1960	Extensive improvements to Federal Building to accommodate Post Office. In progress.
Toronto.....	June 1960	New Postal Station "F". In progress.
Toronto.....	May 1960	Extensive improvements to Postal Station "C". In progress.
Toronto.....	May 1960	Additional conveyors and chutes for Postal Terminal "A". Completed February, 1961.
Wikwemikong.....	June 1960	New residence building for Citizenship and Immigration. Completed February, 1961.
Wellington.....	Nov. 1960	New Post Office Building. In progress.
Zurich.....	Nov. 1960	New Post Office Building. In progress.
<i>MANITOBA</i>		
Cross Lake.....	Mar. 1961	New addition to Nursing Station for National Health and Welfare. In progress.
Crystal City.....	Feb. 1961	New RCMP Detachment Quarters. In progress.
Crystal City.....	Nov. 1960	New Post Office Building. Completed March, 1961.
Lundar.....	Dec. 1960	New Post Office Building. Completed March, 1961.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>MANITOBA—Concluded</i>		
Melita.....	April 1960	New addition to Federal Building to accommodate Post Office. Completed October, 1960.
Rapid City.....	Dec. 1960	New Post Office Building. In progress.
Snow Lake.....	Oct. 1960	New Post Office Building. In progress.
St. Vital.....	Feb. 1961	New addition to Federal Building to accommodate Post Office. In progress.
The Pas.....	July 1960	New addition and alterations to Federal Building to accommodate Post Office, National Revenue, National Health and Welfare, Citizenship and Immigration, Unemployment Insurance Commission and the Royal Canadian Mounted Police. In progress.
Winnipeg.....	Mar. 1961	Federal Building, renovations to 3rd and 4th floors to accommodate Post Office. In progress.
Winnipeg.....	Mar. 1961	Post Office Building, additional storage area in basement. In progress.
Winnipeg.....	June 1960	Post Office Building, additional storage area in basement. Completed September, 1960.
Wasagamung.....	Nov. 1960	New RCMP Detachment Quarters. In progress.
<i>SASKATCHEWAN</i>		
Canwood.....	Nov. 1960	New Post Office Building. In progress.
Fort Qu'Appelle.....	Feb. 1961	Indian Hospital, improvements to boilers. In progress.
Fort Qu'Appelle.....	Jan. 1961	New Staff Residence Buildings for National Health and Welfare. In progress.
Fort Qu'Appelle.....	April 1960	Indian Hospital, new stairways and related alterations. In progress.
Fillmore.....	Dec. 1960	New Post Office Building. In progress.
Gull Lake.....	Feb. 1961	New RCMP Detachment Quarters. In progress.
Hudson Bay.....	Feb. 1961	New RCMP Detachment Quarters. In progress.
Indian Head.....	June 1960	New Federal Building to accommodate Post Office. Completed December, 1960.
Kelliher.....	Nov. 1960	New Post Office Building. In progress.
Kindersley.....	April 1960	New addition to Federal Building to accommodate Post Office. Completed September, 1960.
Milden.....	Nov. 1960	New Post Office Building. In progress.
Maple Creek.....	April 1960	New addition to Federal Building to accommodate Post Office. In progress.
Outlook.....	Feb. 1961	New RCMP Detachment Quarters. In progress.
Porcupine Plain.....	Feb. 1961	New RCMP Detachment Quarters. In progress.
Ponteix.....	Nov. 1960	New Post Office Building. Completed March, 1961.
Prelate.....	Nov. 1960	New Post Office Building. In progress.
Punnichy.....	Oct. 1960	New Post Office Building. In progress.
Regina.....	Mar. 1961	RCMP Headquarters, ventilation of in-door rifle and revolver range. In progress.
Regina.....	Feb. 1961	New National Revenue Building. In progress.
Rockglen.....	Nov. 1960	New Post Office Building. In progress.
Redvers.....	Nov. 1960	New Post Office Building. Completed March, 1961.
St. Brieux.....	Dec. 1960	New Post Office Building. In progress.
St. Philips.....	Aug. 1960	New school for Citizenship and Immigration. In progress.
Turtleford.....	Jan. 1961	New Post Office Building. In progress.
<i>ALBERTA</i>		
Brocket.....	May 1960	New Staff unit for Citizenship and Immigration. Completed November, 1960.
Calmar.....	Dec. 1960	New Post Office Building. In progress.
Coronation.....	Nov. 1960	New Federal Building to accommodate Post Office and Transport Departments. In progress.
Calgary.....	April 1960	Postal Terminal, new mail handling equipment. In progress.
Cold Lake.....	June 1960	New staff unit building for Citizenship and Immigration. Completed November, 1960.
Devon.....	Dec. 1960	New Post Office Building. In progress.
Empress.....	Dec. 1960	New Post Office Building. Completed March, 1961.
Exshaw.....	Nov. 1960	New Post Office Building. Completed March, 1961.
Edmonton.....	July 1960	RCMP Rifle Range, improvements including ventilation. Completed November, 1960.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>ALBERTA—Concluded</i>		
Goodfish Lake.....	July 1960	New staff unit building for Citizenship and Immigration. Completed December, 1960.
Gleichen.....	June 1960	New staff unit building for Citizenship and Immigration. Completed December, 1960.
Hinton.....	Mar. 1961	New RCMP Detachment Quarters. In progress.
Hythe.....	Dec. 1960	New Post Office Building. In progress.
Killam.....	Mar. 1961	New RCMP Detachment Quarters. In progress.
Manyberries.....	Mar. 1961	New school for the Department of Agriculture. In progress.
Mills River.....	Dec. 1960	New Post Office Building. In progress.
Magrath.....	Aug. 1960	New Post Office Building. Completed January, 1961.
Nanton.....	June 1960	New Post Office Building. Completed November, 1960.
Rockyford.....	Dec. 1960	New Post Office Building. Completed March, 1961.
Samson.....	Aug. 1960	New staff unit building for Citizenship and Immigration. Completed January, 1961.
Slave Lake.....	Mar. 1961	New RCMP Detachment Quarters. In progress.
Strathmore.....	Feb. 1961	New RCMP Detachment Quarters. In progress.
Strathmore.....	Dec. 1960	New Post Office Building. In progress.
Standard.....	Nov. 1960	New Post Office Building. Completed March, 1961.
Tofield.....	Dec. 1960	New Post Office Building. In progress.
Wildwood.....	Dec. 1960	New Post Office Building. In progress.
Whitecourt.....	June 1960	New Post Office Building. Completed November, 1960.
<i>BRITISH COLUMBIA</i>		
Alexis Creek.....	Mar. 1961	New Health Centre Building for National Health and Welfare. In progress.
Ahousat.....	June 1960	New School and Staff Unit Buildings for Citizenship and Immigration. Completed December, 1960.
Bralorne.....	Nov. 1960	New Post Office Building. Completed in March, 1961.
Douglas.....	Dec. 1960	New parking and landscaping for Inspection Station. In progress.
Fort St. James.....	Feb. 1961	New RCMP Detachment Quarters Building. In progress.
Field.....	Dec. 1960	New Post Office Building. Completed March, 1961.
Fort St. John.....	Oct. 1960	New garage and improvements to first floor of RCMP Detachment Quarters. In progress.
Galiano.....	April 1960	New Post Office Building. Completed September, 1960.
Klemtil.....	Nov. 1960	New School Building for Citizenship and Immigration. In progress.
Lakalsap.....	July 1960	New addition to School for Department of Citizenship and Immigration. In progress.
100 Mile House.....	Feb. 1961	New Post Office Building. In progress.
Marysville.....	Dec. 1960	New Post Office Building. In progress.
Nelson.....	Oct. 1960	Improvements to coal storage for RCMP Administration Building. In progress.
Nanaimo.....	Sept. 1960	New Gear Research Building—Pacific Biological Station for Department of Fisheries. In progress.
Oliver.....	Dec. 1960	New Federal Building to accommodate Post Office, Veterans Affairs and Agriculture. In progress.
Pemberton.....	Mar. 1961	New RCMP Detachment Quarters. In progress.
Parksville.....	Dec. 1960	New Post Office Building. In progress.
Port Kells.....	Dec. 1960	New Post Office Building. Completed March, 1961.
Penticton.....	Nov. 1960	Parking and roadway improvements to Radio Astrophysical Observatory. Completed November, 1960.
Prince Rupert.....	Nov. 1960	Improvements to Laundry Room and heating system in Nurses' Residence. Completed February, 1961.
Port Hardy.....	May 1960	New RCMP Detachment Quarters. In progress.
Penticton.....	April 1960	New Federal Building to accommodate Post Office and National Revenue. In progress.
Pemberton.....	April 1960	New Health Centre for National Health and Welfare. Completed August, 1960.
Queen Charlotte City.....	May 1960	New RCMP Detachment Quarters. Completed February, 1961.
Rutland.....	Feb. 1961	New Post Office Building. In progress.
South Burnaby.....	Mar. 1961	New Postal Station Building. In progress.
Sechelt.....	Mar. 1961	New RCMP Detachment Quarters. In progress.
Salmo.....	Nov. 1960	New Post Office Building. Completed February, 1961.
Skookumchuck.....	July 1960	New School and Staff Unit Buildings for Citizenship and Immigration. In progress.

BUILDING CONSTRUCTION BRANCH—Concluded

Location	Date contract awarded	Details
<i>BRITISH COLUMBIA—Concluded</i>		
Sidney.....	June 1960	New small temporary Customs Warehouse. Completed December, 1960.
Vananda.....	Dec. 1960	New Post Office Building. Completed March, 1961.
Valemount.....	Dec. 1960	New Post Office Building. Completed March, 1961.
Vancouver.....	Nov. 1960	Improvements to Old Federal Building to accommodate U.I.C. In progress.
Vancouver.....	Oct. 1960	New Laundry Building for Shaughnessy Hospital (for Veterans Affairs). In progress.
Vancouver.....	July 1960	Alterations and improvements to RCMP Fairmont Barracks. Completed December, 1960.
Vancouver.....	June 1960	Extensive alterations and improvements to Postal Station "E". Completed March, 1961.
Yarrow.....	Nov. 1960	New Post Office Building. Completed March, 1961.
<i>YUKON AND NORTHWEST TERRITORIES</i>		
Carcross.....	July 1960	New Warehouse, Garage and Boathouse for Citizenship and Immigration. Completed November, 1960.
Carmacks.....	June 1960	New RCMP Detachment Quarters. Completed November, 1960.
Dawson City.....	Feb. 1961	New Federal Building to accommodate Post Office, National Revenue, Public Works, and Canadian Broadcasting Corporation. In progress.
Dawson City.....	Oct. 1960	New Non-Directional Building for Department of Transport. In progress.
Fort Smith.....	Aug. 1960	New Federal Housing to accommodate Federal Government Employees. In progress.
Fort McPherson.....	July 1960	New water and sewer services for Federal Housing. In progress.
Fort Simpson.....	Sept. 1960	New Warehouses, teacherage, directional beacon and housing for Transport and Northern Affairs and National Resources. In progress.
Hay River.....	Oct. 1960	New addition to School and new housing for Northern Affairs and National Resources. In progress.
Inuvik.....	Aug. 1960	New Housing and Workshops to accommodate Federal Government. In progress.
Padloping.....	Feb. 1961	New Field Medical Stations for National Health and Welfare. In progress.
Perry River, Bathurst Inlet, Gjoa Haven, Back River and Sachs Harbour.....	Feb. 1961	New Field Medical Stations for National Health and Welfare. In progress.

DEVELOPMENT ENGINEERING BRANCH

G. T. Clarke, Chief Engineer

Contract Statement to March 31, 1961

HIGHWAYS DIVISION

TABLE 1

TRANS-CANADA HIGHWAY IN BANFF NATIONAL PARK, ALBERTA

(a) Contracts continuing from 1959-60

Location	Mileage	Type of contract	Date contract awarded	Progress	Remarks
NIL					

(b) Contracts awarded during 1960-61

Banff National Park.....	0-14	Final paving.....	June 21, 1960	Contract completed October 31, 1960	Included paving of view-points at miles 11.7 and 12.6 for Dept. of Northern Affairs and National Resources.
Banff National Park.....	43.5 and 48.2	Construction of retaining walls.	July 7, 1960	Contract completed December 15, 1960.	

NOTE: Mileages measured from East Gate of Park.

TABLE 2

TRANS-CANADA HIGHWAY IN YOHO NATIONAL PARK, BRITISH COLUMBIA

(a) Contracts continuing from 1959-60

NIL					
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(b) Contracts awarded during 1960-61

Yoho National Park.....	Vicinity of Wapta Lake	Railway diversion.....	Aug. 5, 1960	Contract completed October 21, 1960.	
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DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 3

TRANS-CANADA HIGHWAY IN GLACIER NATIONAL PARK, BRITISH COLUMBIA

(a) *Contracts continuing from 1959-60*

Location	Mileage	Type of contract	Date contract awarded	Progress	Remarks
Glacier National Park.....	0-6	Grading and culverts.....	July 14, 1958	Contract completed November 2, 1960.	Included site development for service garage and stores and vehicles storage bldg. for Dept. of Northern Affairs and National Resources at Rogers Pass.
Glacier National Park.....	9.7-12.4	Grading and culverts.....	Aug. 20, 1958	Contract completed November 13, 1960.	
Glacier National Park.....	12.4-18.7	Grading, culverts and construction of reinforced concrete arch culvert Mi. 16.6 and Loop Creek Bridge Mi. 18.4.	Sept. 26, 1958	Bridges completed Road 83% complete.	
Glacier National Park.....	18.73 and 18.54	Construction of Illecillewaet River Bridge No. 3 Mi. 18.73 and CPR O'Pass Mi. 18.54.	Dec. 4, 1958	Contract completed August 31, 1960.	
Glacier National Park.....	6.07	Construction of Beaver River Bridge.	Mar. 18, 1959	Contract completed August 15, 1960.	
Glacier National Park.....	27.1 and 26.4	Construction of Illecillewaet Bridge No. 1 and 2.	May 6, 1959	Contract completed September 16, 1960.	
Glacier National Park.....	8.7	Concrete tunnel liners and Bear Creek diversion tunnel.	Feb. 25, 1960	Contract completed July 4, 1960.	

(b) *Contracts awarded during 1960-61*

Glacier National Park.....	11.01	Construction of snowshed No. 1.	July 29, 1960	87% complete.	
Glacier National Park.....	0-7	Sub-base course class 3.....	June 27, 1960	80% complete.	
Glacier National Park.....	16-29.3	Sub-base course class 3.....	May 30, 1960	85% complete.	
Glacier National Park.....	6-9.7	Grading and culverts.....	July 29, 1960	90% complete.	

NOTE: Mileages measured from East Boundary of Park.

TABLE 4

TRANS-CANADA HIGHWAY IN REVELSTOKE NATIONAL PARK, BRITISH COLUMBIA

(a) *Contracts continuing from 1959-60*

Revelstoke National Park	0-7.7	Grading, culverts and sub-base.	Aug. 20, 1958	Contract completed October 31, 1960.	
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(b) *Contracts awarded during 1960-61*

Revelstoke National Park	0-7.9	Base course class 1 and bituminous stabilized base course.	Sept. 1, 1960	25% complete.	
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NOTE: Mileages measured from East Boundary of Park.

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 5

TRANS-CANADA HIGHWAY IN TERRA NOVA NATIONAL PARK, NEWFOUNDLAND

(a) *Contracts continuing from 1959-60*

Location	Mileage	Type of contract	Date contract awarded	Progress	Remarks
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NIL

(b) *Contracts awarded during 1960-61*

Terra Nova National Park.	0-10	Sub-base, base course, bituminous stabilized base and guide rail.	June 6, 1959	99% complete.	
Terra Nova National Park.	10-25	Sub-base, base course bituminous stabilized base and guide rail.	June 10, 1960	99% complete.	

NOTE: Mileages measured from West Boundary of Park.

PROJECTS CARRIED OUT FOR THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

TABLE 6

NATIONAL PARKS

BANFF-JASPER HIGHWAY, BANFF AND JASPER NATIONAL PARKS

(a) *Contracts continuing from 1959-60*

Banff National Park.....	74-82.3	Grading, culverts, base course, prime and road mix.	Oct. 31, 1958	95% complete.	
Jasper National Park.....	82.3-85.8	Grading, culverts and road mix.	June 12, 1959	Contract completed October 15, 1960.	
Jasper National Park.....	85.8-96.7	Grading, culverts, base course and bituminous stabilized base course.	May 5, 1959	92% complete.	

(b) *Contracts awarded during 1960-61*

Banff National Park.....	68-74	Grading, culverts, sub-base, base course and Nigel Creek Bridge.	Aug. 28, 1960	Roads 27% complete Bridge 1% complete.	
Jasper National Park.....	96.6-104.5	Grading, culverts, base and prime coat.	May 26, 1960	38% complete.	
Banff National Park.....	49-60	Bituminous stabilized base course.	June 2, 1960	Contract completed October 24, 1960.	

NOTE: Mileages measured from Lake Louise Junction.

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 6 (Continued)

BANFF-WINDERMERE HIGHWAY, KOOTENAY NATIONAL PARK

(a) Contracts continuing from 1959-60

Location	Mileage	Type of contract	Date contract awarded	Progress	Remarks
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NIL

(b) Contracts awarded during 1960-61

Kootenay National Park...	1-18	Bituminous stabilized base course.	June 22, 1960	80% complete.	
Kootenay National Park...	56.2-62.4	Grading, culverts, base course and seal coat.	Feb. 21, 1961	.....	Construction to start early in spring.

BANFF AVENUE RECONSTRUCTION, BANFF, ALBERTA

(a) Contracts continuing from 1959-60

NIL

(b) Contracts awarded during 1960-61

Banff National Park.....	—	Reconstruction from Wolfe Street to Bow River.	Aug. 26, 1960	90% complete.	Includes sidewalks and storm sewers.
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EMERALD LAKE ACCESS ROAD, YOHO NATIONAL PARK

(a) Contracts continuing from 1959-60

Yoho National Park.....	0-5	Grading, culverts and sub-base	Sept. 24, 1958	Contract completed July 15, 1960	
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(b) Contracts awarded during 1960-61

Yoho National Park.....	0-5	Double seal coat.....	June 22, 1960	Contract completed September, 1960.	
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CABOT TRAIL—CAPE BRETON HIGHLANDS NATIONAL PARK

(a) Contracts continuing from 1959-60

Cape Breton Highlands National Park.	23.5-29.5	Grading, culverts, retaining walls and base course.	June 17, 1959	Contract completed August 15, 1960.	
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(b) Contracts awarded during 1960-61

Cape Breton Highlands National Park.	24.75	Bridge over the Grand Anse River.	May 27, 1960	Contract completed October 15, 1960.	
Cape Breton Highlands National Park.	29.5-33.5	Grading, culverts and base course.	May 26, 1960	Contract 75% complete.	
Cape Breton Highlands National Park.	15-21 and 22.5-33.5	Bituminous concrete pavement.	Aug. 28, 1960	Contract 60% complete.	

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 6 (Continued)

WOLFE'S POINT AND HERRING COVE ROAD, FUNDY NATIONAL PARK

(a) Contracts continuing from 1959-60

Location	Mileage	Type of contract	Date contract awarded	Progress	Remarks
Fundy National Park.....	—	Paving approximately 8.6 miles of road.	Aug. 8, 1959	Contract completed June 30, 1960.	

(b) Contracts awarded during 1960-61

NIL

GULF SHORE ROAD, PRINCE EDWARD ISLAND NATIONAL PARK

(a) Contracts continuing from 1959-60

P.E.I. National Park.....	7.45-11.67	Grading, culverts and stabilized base course, Brackley Point to West End of Rustico Island.	Sept. 9, 1958	Contract completed September 30, 1960.	
P.E.I. National Park.....	12.47-20.15	Grading, culverts, paving Rustico Harbour to New London Campgrounds.	July 24, 1958	85% complete.	
P.E.I. National Park.....	0-7.5	Paving, Dalvay to Brackley Point.	Oct. 1, 1959	Contract completed October 8, 1960.	

(b) Contracts awarded during 1960-61

P.E.I. National Park.....	—	Rock Rip Rap on Rustico Island Causeway.	Oct. 7, 1960	Contract completed November 18, 1960.	
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NORTHWEST TERRITORIES

MACKENZIE HIGHWAY EXTENSION

(a) Contracts continuing from 1959-60

Northwest Territories.....	20-58 measured from Yellowknife	Grading, culverts and crushed rock surfacing, Yellowknife to Fort Rae.	May 14, 1958	Contract completed October 21, 1960.	
Northwest Territories.....	31-83 measured from Fort Providence	Grading, culverts and traffic gravel, Fort Providence-Fort Rae.	Mar. 11, 1959	Contract completed October 31, 1960.	
Northwest Territories.....	83-136 measured from Fort Providence	Grading, culverts and traffic gravel, Fort Providence-Fort Rae.	Mar. 18, 1959	Contract completed October 15, 1960.	
Northwest Territories.....	136.2	Construction of 4-span steel bridge over Frank's Channel.	May 7, 1959	98% complete.	

DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 6 (Continued)

(b) Contracts awarded during 1960-61

Location	Mileage	Type of contract	Date contract awarded	Program	Remarks
Northwest Territories....	0-136 measured from Fort Providence	Gravel lift Fort Providence to Frank's Channel.	Aug. 26, 1960	40% complete.....	Winter road maintenance also carried on under this contract.
Northwest Territories....	1-85	Haul and stockpile traffic gravel.	Feb. 8, 1961	Contract completed March 15, 1961.	
Northwest Territories....	Minus 1 measured from Fort Providence	Approaches, causeway and haul-out facilities for MacKenzie River Ferry Crossing.	Aug. 9, 1960	90% completed.	
Northwest Territories....	MacKenzie River	Construction of steel ferry...	Aug. 5, 1960	30% complete.....	Scheduled for completion in summer of 1961.

RECONSTRUCTION OF MACKENZIE HIGHWAY FROM HAY TO RIVER TO ALBERTA BORDER

(a) Contracts continuing from 1959-60

NIL

(b) Contract awarded during 1960-61

Northwest Territories....	2-28 measured from Hay River	Grading, culvert and screened gravel surfacing.	July 20, 1960	80% complete.	
Northwest Territories....	25-51 measured from Hay River	Clearing right-of-way.....	Jan. 31, 1961	Contract completed March 31, 1961.	
Northwest Territories....	51-76 measured from Hay River	Clearing right-of-way.....	Mar. 13, 1961		

FORT RAE ACCESS ROAD

(a) Contract continuing from 1959-60

NIL

(b) Contracts awarded during 1960-61

Northwest Territories....	Frank's Channel-Fort Rae	Grading, culverts and crushed rock surfacing.	May 3, 1960	75% complete.	
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DEVELOPMENT ENGINEERING BRANCH—Continued

TABLE 6 (Continued)

WOOD BUFFALO PARK

(a) Contracts continuing from 1959-60

Location	Mileage	Type of contract	Date contract awarded	Progress	Remarks
Northwest Territories.....	0-75	Clearing from Peace Point to West Boundary of park.	Dec. 17, 1958	Terminated July 1, 1960.	

(b) Contracts awarded during 1960-61

NIL					
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YUKON TERRITORY

WATSON LAKE—ROSS RIVER ROAD

(b) Contracts awarded during 1960-61

Yukon Territory.....	0-30	Development road.....	June 18, 1959	Contract completed November 19, 1960.	
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FLAT CREEK—EAGLE PLAIN ROAD

(a) Contracts continuing from 1959-60

NIL					
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(b) Contracts awarded during 1960-61

Yukon Territory.....	30-50	Grading and culverts.....	Feb. 23, 1960	Contract completed November 15, 1960.	Contract extended to Mile 62.
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WHITEHORSE—MAYO—KEENO ROAD

(a) Contracts continuing from 1959-60

Yukon River.....	102	Bridge construction.....	June 6, 1958	Contract completed June 30, 1960.	
Stewart River.....	22.4	Bridge construction.....	June 18, 1959	Contract completed September 30, 1960.	
Pelly River.....	16.8	Bridge construction.....	June 18, 1959	Contract completed September 30, 1960.	

DEVELOPMENT ENGINEERING BRANCH—Concluded

TABLE 6 (Concluded)

STEWART CROSSING—DAWSON ROAD

(a) Contracts continuing from 1959-60

Location	Mileage	Type of contract	Date contract awarded	Program	Remarks
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NIL

(b) Contracts awarded during 1960-61

McQuesten River Bridge Site.	29.2	Moving camp buildings.....	Nov. 23, 1960	Contract completed December 23, 1960.	
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TABLE 7

SPECIAL PROJECTS

(a) Contracts continuing from 1959-60

Campbellton, N.B.—Cross Point, P.Q.	—	Sub-structure for interprovincial bridge.	Dec. 17, 1958	99% complete.....	Minor work waiting for completion of superstructure.
Campbellton, N.B.—Cross Point, P.Q.	—	Additional granular fill for causeway.	April 23, 1960	Contract completed May 7, 1960.	
Campbellton, N.B.—Cross Point, P.Q.	—	Superstructure for interprovincial bridge.	July 13, 1959	78% complete.	
Dartmouth, N.S.....	—	Access road, security fence and watermain for oceanographic and hydrographic station.	Dec. 29, 1959	Contract completed July 22, 1960.	
Stanhope, P.Q.....	—	Paving, customs and immigration terminal.	Nov. 23, 1959	Contract completed June 10, 1960.	
Burlington, Ont.....	—	Sub-structure for lift bridge over Burlington Ship Channel.	Oct. 2, 1958	99% complete.....	Minor work waiting on completion of superstructure.
Burlington, Ont.....	—	Superstructure for Lift Bridge.	Mar. 3, 1959	70% complete.	
Regina, Sask.....	—	Construction of sewage pumping station at RCMP barracks.	Feb. 9, 1960	Contract completed July 22, 1960.	

(b) Contracts awarded during 1960-61

Churchill, Man.....	—	Access road, intake structure and water supply pipeline.	Oct. 23, 1960	10% complete.	
Churchill, Man.....	—	Water supply and sewage disposal for Eskimo Camp 20.	Dec. 18, 1960	1% complete.	
Indian Head, Sask.....	—	Sewage pump house and domestic sewer for Dominion Experimental Farm.	Oct. 28, 1960	50% complete.	
Royal Oaks, B.C.....	—	Access road to Dominion Astrophysical Observatory.	Feb. 15, 1960	Work commenced March 6, 1960.	
Inuvik, N.W.T.....	—	Road improvements in town-site and travelling of R.C.M.P. Hangar.	May 2, 1960	Contract completed August 15, 1960.	

TABLE 8

BRIDGE CONTRACT STATEMENT TO MARCH 31, 1961

Location	Type of structure	Date awarded	Progress
Burlington Canal.....	Substructure, Lift Bridge.....	Oct. 2, 1958	99% complete.
Burlington Canal.....	Superstructure, Steel Lift Bridge.....	Feb. 26, 1959	31.3% complete.
Cross Point, P.Q.-Campbellton, N.B. Interprovincial Bridge.	Substructure.....	Dec. 17, 1958	98% complete.
Cross Point, P.Q.-Campbellton, N.B. Interprovincial Bridge.	Superstructure.....	July 9, 1959	95% complete.
Franks Channel, N.W.T.....	Steel Bridge, Concrete deck.....	May 7, 1959	98% complete.
Stewart River, Y.T.....	Steel Truss Bridge.....	Mar. 31, 1959	100% complete.
Pelly River, Y.T.....	Steel Truss Bridge.....	Mar. 31, 1959	100% complete.
Ogilvie, Y.T.....	Steel Truss Bridge.....	Mar. 18, 1961	2% complete.
Glacier National Park.....	Snowshed No. 1 Mile 11.01 TCH.....	June 7, 1960	90% complete.
Nigel Creek, Banff National Park.	Steel Arch Bridge, TCH.....	Aug. 17, 1960	1% complete.
Chaudiere, Ottawa.....	Replacement of 2 bearings.....	Nov. 25, 1960	100% complete.
Grande Anse, N.S.....	Simple Concrete beam span.....	May 9, 1960	100% complete.

TABLE 9

BRIDGES AND OTHER STRUCTURAL WORK, INCLUDING PRELIMINARIES, PARTIALLY OR FULLY DESIGNED DURING FISCAL YEAR 1960-61

- (a) *For Trans-Canada Highway in National Parks*
 Lens and Tupper No. 3 Snowsheds..... Glacier.
 Tupper No. 1 and Tupper No. 2 Snowsheds..... Glacier.
- (b) *For Department of Northern Affairs and National Resources*
 *Rocky River Bridge No. 1..... Jasper.
 Rocky River Bridge No. 2..... Jasper.
 40 Mile Creek Bridge..... Banff.
 *Snaring River Bridge..... Jasper.
 Hay River Bridge..... North West Territories.
 *Ogilvie Bridge, Klondike River..... Yukon Territory.
 *Miette River Bridge..... Jasper.
 *Fiddle River Bridge..... Jasper.
 *Yellowknife River Bridge..... North West Territories.
 McQuesten River Bridge..... Yukon Territory.
 Frances River Bridge..... Yukon Territory.
 Klondike River Bridge..... Yukon Territory.
 Athabaska River Bridge..... Banff-Jasper Highway.
 Eisenhower Overpass..... Banff-Jasper Highway.
 McKenzie Highway Culverts..... North West Territories.
- (c) *Miscellaneous*
 Laurier Avenue Bridge, Repairs..... Ottawa.
 *Perley Bridge, Alterations..... Hawkesbury.
 *Standard Detail Drawings..... Ottawa.
 *Northumberland Straight Causeway, Preliminary study..... New Brunswick.
 *Macdonald-Cartier Bridge (Preliminary studies)..... Ottawa.
 Reports on (a) Bryson Bridge..... Quebec.
 (b) Black Brook Bridge, Cape Breton..... Nova Scotia.
 *Rideau River Crossing at Hogs Back Preliminary studies..... Ottawa.
 Hillsborough Bridge..... Prince Edward Island.
 Edmundston International Bridge, New deck..... New Brunswick.
 Berthierville Bridges..... Quebec.
 Reports on (a) Berthierville Bridges..... Quebec.
 (b) Des Joachims Bridge..... Quebec.
 *Standard Detail Drawings..... Ottawa.
 Inspection of Peterborough Lift Lock..... Ontario.
 Test on snowshed roof in Guelph..... Ontario.
 District Engineer's Building, Toronto..... Ontario.

NOTE

*Design on these projects was started in 1959-60 fiscal year and continued in 1960-61.

TABLE 10

TRANS-CANADA HIGHWAY PROVINCIAL BRIDGES 1960-61
CHECKED AND APPROVED FOR SCHEDULE "B"

Newfoundland.....	4
Nova Scotia.....	1
Prince Edward Island.....	1
New Brunswick.....	1
Ontario.....	10
Manitoba.....	0
Saskatchewan.....	0
Alberta.....	0
British Columbia.....	30
	47

ROADS TO RESOURCES 1960-61

Checked and approved

Newfoundland.....	1
New Brunswick.....	2
Quebec.....	5
Ontario.....	1
Manitoba.....	9
Saskatchewan.....	2
	20
Miscellaneous.....	5

TABLE 11

TESTING LABORATORIES DIVISION
Quantity of Each Type of Material Received

Material	Samples Received	
	Total	Sub-Total
Concrete Aggregates.....	385	
Concrete Test Specimens.....	3,790	
Concrete Products.....	144	
Cement.....	110	
Ceramic Materials.....	219	
Rock.....	205	
Metal.....	49	
Aluminum Windows.....	51	
Miscellaneous.....	153	
Sub-Total—Physical Section.....	5,106	5,106
Soils (Foundation Material).....	1,536	
Sub-Total—Soils Section.....	1,536	1,536

TABLE 11
TESTING LABORATORIES DIVISION—Concluded
Quantity of Each Type of Material Received

Material	Samples Received	
	Total	Sub-Total
Creosote Oils.....	201	
Protective Coatings.....	686	
Petroleum Products.....	105	
Soaps and Detergents.....	43	
Waxes and Polishes.....	45	
Water.....	42	
Office Supplies.....	345	
Paper.....	25	
Sweeping Compounds.....	14	
Cement.....	20	
Miscellaneous.....	498	
Sub-Total—Chemical Section.....	2,024	2,024
Asphaltic Concrete Aggregates.....	248	
Asphaltic Products.....	479	
Asphaltic Concrete Mixtures.....	1,187	
Base Coarse Aggregates.....	239	
Concrete Aggregates.....	103	
Concrete Test Specimens.....	1,079	
Creosote Oils.....	3	
Soils Foundation and Embankment Materials.....	1,075	
Miscellaneous.....	6	
Sub-Total—Banff Section.....	4,419	4,419
TOTAL.....	13,085	13,085
Creosote Reports Reviewed.....	897	897
GRAND TOTAL (Samples and Reports).....	13,982	13,982

TABLE 12

TESTING LABORATORIES DIVISION

SOURCE OF SAMPLES RECEIVED AND QUANTITY FROM EACH SOURCE

Source	Samples	
	Total	Sub-Total
Department of Public Works—		
Harbours and Rivers Branch.....	2,062	
Building Construction Branch.....	3,264	
Property and Building Management.....	146	
Purchasing and Stores Branch.....	249	
Development Engineering.....	4,578	
TOTAL FOR PUBLIC WORKS.....		10,299
Department of Public Printing and Stationery.....	329	
Department of Transport.....	492	
Department of National Defence.....	185	
Department of Justice.....	301	
Central Mortgage and Housing.....	473	
Northern Affairs and National Resources.....	309	
Other Sources.....	679	
TOTAL FOR OTHER SOURCES.....		2,786
TOTAL.....	13,085	13,085

REPORT OF THE TREASURY OFFICE

J. M. Wilkinson, Chief Treasury Officer

STATEMENT OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS DURING
THE FISCAL YEAR ENDING MARCH 31, 1961

	Dredging	Con- struction and improve- ments	Repairs and main- tenance	Staff and sundries	Total
PUBLIC BUILDINGS—					
Outside of Canada.....		4,283,503	44,771	308,807	4,637,081
Newfoundland.....		246,226	110,063	569,382	925,671
Nova Scotia.....		1,341,071	120,962	1,124,543	2,586,576
Prince Edward Island.....		34,721	23,194	188,808	246,723
New Brunswick.....		376,784	142,768	918,258	1,437,810
Quebec.....		3,198,518	1,151,757	6,420,792	10,771,067
Ontario.....		14,999,786	3,376,159	22,305,404	40,681,349
Manitoba.....		1,404,504	317,394	1,536,759	3,258,657
Saskatchewan.....		1,855,278	185,037	1,209,043	3,249,358
Alberta.....		2,167,921	184,278	1,658,087	4,010,286
Yukon and Northwest Territories...		2,179,071	111,025	669,135	2,959,231
British Columbia.....		1,976,255	373,798	2,976,549	5,326,602
Totals.....		34,063,638	6,141,206	39,885,567	80,090,411
HARBOURS AND RIVERS—ENGINEERING					
Newfoundland.....	556,715	6,313,869	377,690	98,593	7,346,867
Nova Scotia.....	445,253	3,569,509	516,905	90,506	4,622,173
Prince Edward Island.....	321,991	656,797	142,808	376,940	1,498,536
New Brunswick.....	842,462	1,773,566	223,966	23,932	2,863,926
Quebec.....	726,432	5,037,253	1,092,338	298,834	7,154,857
Ontario.....	757,919	6,608,644	316,145	63,372	7,746,080
Manitoba.....	212,925	108,542	74,454	87,240	483,161
Saskatchewan.....			3,557		3,557
Alberta.....	193,681	28,983	3,465	5,774	231,903
Yukon and Northwest Territories...	86,253	82,607	8,203	83,564	260,627
British Columbia.....	1,307,343	2,224,530	462,218	2,220,091	6,214,182
Totals.....	5,450,974	26,404,300	3,221,749	3,348,846	38,425,869
DEVELOPMENT ENGINEERING—					
Newfoundland.....		8,822,798			8,822,798
Nova Scotia.....		3,257,089			3,257,089
Prince Edward Island.....		551,095			551,095
New Brunswick.....		4,331,560	1,135		4,332,695
Quebec.....		829,772	58,822		888,594
Ontario.....		19,382,513	129,629		19,512,142
Manitoba.....		632,170	199		632,369
Saskatchewan.....		33,522			33,522
Alberta.....		805,334			805,334
Yukon and Northwest Territories...			2,500		2,500
British Columbia.....		22,566,993			22,566,993
Testing Laboratories.....				976,098	976,098
Totals.....		61,212,846	192,285	976,098	62,381,229
MISCELLANEOUS—					
Minister's Salary and Motor Car Allowance.....				17,000	17,000
General Administration.....				9,749,986	9,749,986
Fire Prevention.....				178,421	178,421
Total.....				9,945,407	9,945,407
Grand Totals.....	5,450,974	121,680,784	9,555,240	54,155,918	190,842,916

NOTE: Details of expenditures covering individual contracts may be found in the Public Accounts for 1960-1961

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1960-1961

Revenue received by the Department of Public Works during the fiscal year ending March 31, 1961.

PUBLIC BUILDINGS

ORDINARY—

Rents from Public Buildings and related properties.....	\$ 1,412,624.69
Sales of old furniture, fittings and building material, etc.....	47.05
Sales of real estate.....	661,033.00
Commissions from telephone booths in public buildings.....	22,758.63
Refunds of Previous Years' Expenditures.....	543,511.93
	<u>\$ 2,639,975.30</u>

ENGINEERING WORKS

Sales of real estate.....	\$ 38,547.79
Earnings of Dry Docks, etc.	
Champlain Dry Dock, Lauzon, Que.....	139,222.97
Lorne Dry Dock, Lauzon, Que.....	36,637.50
Selkirk, Man., Repair Slip.....	2,321.20
Esquimalt, B.C., New Dry Dock.....	172,912.05
	<u>\$ 389,641.51</u>
Revenue from leased works and plants—	
Kingston, Ont., Dry Dock, Rental.....	\$12,100.00
Ferry privileges.....	335.99
Earnings of dredges and plants.....	79,104.49
	<u>\$ 91,540.48</u>
Rents from water lots, etc.....	74,663.86
Refunds of Previous Years' Expenditures.....	1,180,262.53
Sundry receipts.....	210.00
	<u>\$ 1,736,318.38</u>

MISCELLANEOUS

Damages to government property.....	\$ 118,982.35
Sundry receipts.....	163,938.60
	<u>\$ 282,920.95</u>

GENERAL SUMMARY

Public Buildings.....	\$ 2,639,975.30
Engineering Works.....	1,736,318.38
Miscellaneous.....	282,920.95
	<u>\$ 4,659,214.63</u>

1960-61 REVENUE

The revenue for the year amounted to \$4,659,214.63 and was made up as follows:

Graving Docks.....	\$ 351,093.72
Rents.....	1,578,493.04
Casual Revenue.....	2,729,291.88
Ferries.....	335.99
	<u>\$ 4,659,214.63</u>

DEPARTMENT OF PUBLIC WORKS
REPORT OF THE CHIEF TREASURY OFFICER, 1960-1961—Conc.

A breakdown of the above revenue follows:

Graving Docks—Maintenance and Operation

Champlain Graving Dock.....	\$ 139,222.97
Lorne Graving Docks, Lauzon, Que.....	36,637.50
Selkirk, Man.—Repair Slip.....	2,321.20
Esquimalt, B.C.—Graving Dock.....	172,912.05
	<hr/>
	\$ 351,093.72

Rents

Public Buildings.....	\$ 1,412,624.69
Water lots.....	74,663.86
Kingston Dry Dock.....	12,100.00
Earnings of the Dredges.....	79,104.49
	<hr/>
	\$ 1,578,493.04

Casual Revenue

Sales of old furniture, etc.....	\$ 47.05
Sales of real estate—Buildings.....	661,033.00
Commission from telephones in Public Buildings..	22,758.63
Refunds of previous years' expenditures—Public Buildings.....	543,511.93
Refunds of previous years' expenditures—Engineering.....	1,180,262.53
Sundry receipts—Engineering.....	210.00
Damages to Government property.....	118,982.35
Sundry receipts—Miscellaneous.....	163,938.60
Sales of real estate—Engineering.....	38,547.79
	<hr/>
	\$ 2,729,291.88

Ferries

Licence fees.....	\$ 335.99
	<hr/>
	\$ 4,659,214.63

As compared with 1959-60, there was a net increase of \$2,377,477.30. The increase in casual revenue was \$2,095,681.15, and from rents \$287,147.99. The decrease in revenue from graving docks amounted to \$4,949.83, and from ferries \$402.01.



REPORT of the DEPARTMENT of PUBLIC WORKS

for the fiscal year
ended
MARCH 31,
1962



ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1963

Price 50 cents Cat No W1—1962

To His Excellency Major-General Georges Vanier, D.S.O., M.C., C.D., Governor-General and Commander-in-Chief of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1962.

Respectfully submitted,

E. D. FULTON

Minister of Public Works.

OTTAWA, November 26, 1962.

The Honourable E. D. Fulton, Minister of Public Works, Ottawa.

SIR:

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1962.

Your obedient servant,

H. A. YOUNG,
Deputy Minister.

OTTAWA, November 26, 1962.

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

As of March 31, 1962

Minister.....	Hon. David J. Walker
Parliamentary Secretary.....	Yvon R. Tassé, M.P.
Executive Assistant to the Minister.....	J. E. Mahoney
Deputy Minister.....	Major-General H. A. Young
Executive Assistant to the Deputy Minister..	H. A. Langlois
Assistant Deputy Minister.....	George T. Jackson
Assistant Deputy Minister (Technical).....	G. B. Williams
Chief of Administrative Services and Secretary	Robert Fortier
Director, Economic Studies Branch.....	Dr. E. P. Weeks
Financial Adviser.....	L. V. McGurran
Chief, Purchasing and Stores Branch.....	H. G. Hunt
Chief, Information Services.....	E. J. Marten
Chief, Personnel Branch.....	J. F. Maxwell
Chief, Legal Services.....	Alban Garon
Dominion Fire Commissioner.....	R. A. W. Switzer

Regional Directors

Montreal, Que.....	R. J. Grenier (On Loan to Royal Commission on Government Organization)
Edmonton, Alta.....	R. G. McFarlane

Harbours and Rivers Engineering Branch

Chief Engineer.....	G. Millar
Chief, Marine Excavation Division.....	J. F. Godsell
Chief, Maintenance and Operations Division.....	C. K. Hurst
Chief, Planning and Construction Division.....	J. E. Bright

District Engineers

St. John's.....	G. E. Knight
Charlottetown.....	T. B. McLennan
Halifax.....	J. A. Brown
Saint John.....	E. D. Manchul
Rimouski.....	G. Lajoie
Quebec.....	L. McLaren
Montreal.....	M. J. A. Lamoureux
Ottawa.....	P. W. Walters
Toronto.....	R. P. Henderson
London.....	G. N. Scroggie
Fort William.....	E. B. Ashton (Acting)
Winnipeg.....	C. L. Davies
Edmonton.....	C. A. Walrath (Acting)
Vancouver.....	A. W. Walkey

Development Engineering Branch

Chief Engineer.....	G. T. Clarke
Administrative Officer to Chief Engineer..	W. M. Oakes
Chief, Engineering and Construction Division.....	W. R. Binks

Acting Chief, Structures Division.....	G. H. Foures
Chief, Technical Co-ordination and Administration Division.....	H. M. Millar
Chief, Testing Laboratories.....	N. E. Laycraft

Supervising Engineers

Newfoundland.....	A. L. Perley
Nova Scotia.....	H. F. Peters
New Brunswick and Prince Edward Island.....	H. A. Nason
Ontario.....	W. Koropatnick
Manitoba and Saskatchewan.....	J. A. Flatt
Alberta and Northwest Territories.....	J. E. Savage
Banff, Alberta (Western National Parks)	A. H. MacKinnon
British Columbia.....	B. G. Harvey
Whitehorse, Yukon Territories.....	J. E. Kellett

Building Construction Branch

Chief Architect.....	E. A. Gardner
Assistant Chief Architect.....	A. K. Mills
Assistant Director i/c Administration....	W. D. Egan
Chief, Requirements Division.....	E. G. Langley
Chief, Plans and Specifications Division..	I. B. Simpson
Chief, Northern Construction Division..	G. B. Pritchard

District Architects

St. John's.....	L. W. Hopkins
Halifax.....	P. W. Vaughan
Saint John.....	R. F. West
Quebec.....	J. A. Drolet
Montreal.....	I. J. C. A. Goudreau
Ottawa.....	A. D. Wilson
Toronto.....	(Vacant)
Winnipeg.....	H. C. Tod
Edmonton.....	A. E. Cook
Vancouver.....	R. J. Bickford

Property and Building Management

Director.....	D. A. Freeze
Assistant Director.....	E. C. Martel
Chief, Lands Administration Division....	W. F. Cherry
Chief, Accommodation Division.....	A. S. Archard
Chief, Operations Division.....	E. W. Labelle

District Managers

St. John's.....	J. W. Pye
Halifax.....	L. B. Campbell
Saint John.....	R. S. Lawrence
Quebec.....	E. Raymond
Montreal.....	G. K. Aubut
Ottawa.....	B. Payette
Toronto.....	W. H. Kayes
London.....	R. Isted
Winnipeg.....	F. H. Weyerman
Saskatoon.....	R. S. Fonberg
Edmonton.....	J. T. Gibson
Vancouver.....	G. E. McPhee
London, England.....	W. T. Rutherford

REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1962

Introduction

An extensive works program was carried out by the Department during the 1961-62 fiscal year, although when measured in dollar value, it was somewhat smaller than that for 1960-61. This decline, however, was somewhat offset by a further expansion in the Department's role as the Federal Government's main construction agency. This expansion was evident in a substantial increase during the year in the work carried out by the Department using funds from the estimates of other Government Departments and agencies.

Expenditures from Departmental estimates during the year totalled \$174,256,978, compared with \$190,842,916 for the previous fiscal year. The value of work carried out during the year under encumbrances from other departments and therefore not reported in Public Works accounts was \$40,711,404.67 compared with \$36,421,633.42 for 1960-61. Overall expenditures were \$214,968,382.67 for the year compared with \$227,264,549.42 for 1960-61.

General Comments

Work on the Trans-Canada Highway was continued at a satisfactory pace during the year. Good progress was made particularly in those sections of the route which pass through Canada's national parks. The District Office of the Development Engineering Branch, established in Quebec following the entry of that Province into a Trans-Canada Highway Agreement, completed its full first year of operation. Cost of the share of the work to be undertaken by the Province on the Trans-Canada Highway is presently estimated at \$90 million.

Other major highway construction programs were undertaken in national parks on behalf of the Department of Northern Affairs and National Resources, while in the Yukon Territories almost \$4 million was spent in road construction work. In the Northwest Territories the extension of the Great Slave Highway to Yellowknife was completed and the road was re-gravelled from Fort Providence to Frank Channel. Work was also begun on an extension of this highway eastward from Yellowknife to MacKay Lake.

The \$5 million bridge between Campbellton, N.B. and Cross-Point, Quebec, was completed and work continued on the Roosevelt Memorial Bridge between Lubec, Maine, and Campobello Island, New Brunswick. Work on the low level lift bridge over the canal at Burlington was advanced by the end of the year to the extent that traffic was able to use it. At the request of the Emergency Measures Organization, a survey of some 5,000 federal buildings throughout Canada was undertaken to find out what protection they provide against radioactive fallout.

In Harbours and Rivers Engineering work the program of construction of community fishing stages which was begun in Newfoundland in 1960 was completed during the year. The main finger pier in the St. John's harbour development was also completed and work was well advanced on two large transit sheds.

In Quebec industrial development in the north shore area has led to the need for improvement in ferry services to the south shore. A new service was inaugurated between Pointe au Pere and Baie Comeau, while improvements in

present facilities were being carried out at Seven Islands. Plans were also underway to improve the ferry terminal at Matane to facilitate better service from that port to Godbout.

In Ontario, work was well advanced on the \$8½ million Lakehead harbour terminal. Work was also undertaken at several Great Lakes ports associated with requirements for shipping using the St. Lawrence Seaway. These included Hamilton, Port Credit, Toronto, Cobourg, Collingwood, Oshawa, Parry Sound, and Whitby.

In the Arctic a new vessel, the "Hugh A. Young", was put into service on the MacKenzie River with a view to carrying out further improvements in navigation. Development of new settlements along the river require an increasing amount of materials to be shipped by water.

In the Building Construction field more than 200 contracts were awarded during the year for extensive alterations and improvements to existing buildings or for construction of new ones. Nine of the construction contracts for new buildings were for a value in excess of \$1 million. The program of constructing standard post office buildings in the smaller communities of Canada was continued with sixty-six contracts being awarded for work to be carried out during winter months.

Expenditures and Revenue

The total expenditure by the Department during the fiscal year 1961-62, on its various works of construction, maintenance and operation amounted to \$214,968,382.67 including \$40,711,404.67 expended under encumbrances from other departments but not reported in Public Works accounts.

The details of expenditures for the year may be classified as follows:

Public Buildings.....	\$ 79,489,531.00	
Development Engineering.....	46,800,161.00	
Harbours and River works.....	31,817,033.00	
Dredging, plant, etc.....	5,618,314.00	
Minister's Salary and Motor Car Allowance.....	17,000.00	
Departmental Administration.....	10,319,637.00	
Fire Prevention.....	195,302.00	
		\$174,256,978.00
Expenditures made under encumbrances from other departments but not reported in Public Works accounts:		
Public Buildings.....	\$ 18,474,004.72	
Development Engineering.....	14,170,807.00	
Harbours and Rivers.....	8,066,592.95	
		\$ 40,711,404.67
		<u>\$214,968,382.67</u>

The revenue for the year amounted to \$3,604,377.82 and is made up as follows:

Graving Docks.....	389,498.30	
Rents.....	1,718,731.18	
Casual Revenue.....	1,495,467.34	
Ferries.....	681.00	
		<u>\$ 3,604,377.82</u>

As compared with 1960-61 there was a net decrease in revenue of \$1,054,836.81. There was an increase in revenue from graving docks of \$38,404.58, rents of \$140,238.14 and ferries of \$345.01, and a decrease in casual revenue of \$1,233,824.54.

ADMINISTRATIVE SERVICES AND DEPARTMENTAL SECRETARY

Public tenders for 484 projects were advertised during the year by the Departmental Secretary in newspapers and industrial publications across the country. Contractors or their representatives were present in most cases when tenders were opened in Ottawa while representatives of the Canadian Construction Association and the press attended in all cases. Public tenders for projects having estimated costs of less than \$25,000 each, an increase from \$15,000 for the previous fiscal year, were advertised by regional and district offices. Approximately 50% of securities received with tenders were in the form of Bid Bonds. Over 95% of securities accepted on contract awards consisted of Performance Bonds and Labour and Material Payment Bonds. Sets of plans and specifications were supplied to 1,286 firms and deposits were refunded in 954 instances when the sets were returned.

During the fiscal year Central Registry received and processed 206,393 pieces of correspondence of which 53,224 pieces were precis-written. The communication section handled 8,658 telegrams and 25,395 telex messages. A program for records disposal is being developed to cover both headquarters and district offices in accordance with the reports issued by the Public Records Committee.

The Equipment and Supply Division is responsible for the requisitioning and supply of office equipment, general stationery and printed matter for Departmental use. This office also continued during the year to co-ordinate Departmental requirements for printing, duplicating and related services with the Department of Public Printing and Stationery.

The Form Control Section revised 74 departmental forms, created 13 new ones and declared 34 obsolete. Ninety-two Departmental directives were classified and distributed. This unit also started a general review of forms used in the district offices. It is hoped that a substantial reduction in the number of forms used, and improvements in administrative efficiency will be attained by standardization of forms which, although different in design, serve the same or similar purposes.

Photographic Services produced 1,121,856 square feet of whiteprints and blueprints for construction projects being undertaken by the Department of Public Works and other departments. The total of all prints produced by the whiteprint and blueprint section was 1,157,307 square feet consisting of diazo, vapo-film, diazochrome, tecnisheen, auto-positive paper, auto-positive film, repro-negative, cronaflex and blueline prints. The unit produced 1,200 film negatives and 5,600 prints and enlargements. New processes for overlays were instituted in which colour ozalid film is now produced to show different details in various colours when film is to be used as an overlay.

ECONOMIC STUDIES BRANCH

The Economic Studies Branch reviewed and made specific recommendations on a number of public projects being considered by the Department during the year. The Branch also assessed prospects for population and economic growth in various communities in different parts of the country (including a number of metropolitan areas), where provision of new or additional space to accommodate several departments is under consideration. This work complemented the Branch's representation on the Treasury Board Committee on Accommodation Standards.

Members of the Branch continued to make on-site surveys of individual harbours as required. The Interdepartmental Group on Canadian Harbours, which is headed by the Director of the Branch, investigated and made recommendations on certain port questions.

This Branch was also represented on other interdepartmental committees.

FINANCIAL SERVICES DIVISION

The main work carried out by the Division during the year involved the preparation, analysis and co-ordination of the Main and Supplementary Estimates of the Department; responsibility for accounting and budgetary control throughout the Department; the development of policies and procedures relating to these functions; and the planning and implementation of policies and procedures relating to the Department's contract administration. The Division provided representation for the Department during the year on the Treasury Board Advisory Committee on contracts.

The Financial Services Division is responsible for liaison with the Comptroller of the Treasury, with Treasury Board, and with other government departments as far as the Department's financial matters are concerned.

FIRE PREVENTION BRANCH

An indication of the value of fire prevention activities in the Federal Government was shown by the fire loss record. For those departments listed under the Fire Prevention Regulations P.C. 1960-51/1499, 558 fires causing a loss of \$443,512 in Government property were recorded for the calendar year 1961. This figure compared favourably with 507 fires for a loss of \$1,082,774 for the previous year. It represented the lowest loss figure yet recorded.

Human carelessness was still the largest cause of fires. An intensified program of employee instruction and training in fire prevention procedures and the use of hand fire equipment is being followed. During the year, 68 lectures and demonstrations were given to an estimated 1,500 employees. Established fire drill procedures were tested when some 35,000 Civil Servants in all parts of Canada took part in over 60 fire drills.

The number of entries in the Annual Fire Prevention Contest increased from 93 in 1960 to 135 in 1961. This activity encourages fire prevention education practices and is a measure of the enthusiasm displayed by departments. In a ceremony in the Parliament Buildings, awards were presented to several Cabinet Ministers. Dr. E. W. R. Steacie, President of the National Research Council, received the top award. The first award ever given to an Indian reservation was accepted on their behalf by the Honourable Ellen L. Fairclough.

The program of checking departments' preliminary plans and outline specifications for new construction was intensified. Over 350 such plans were reviewed. In addition, 69 fire protection engineering design specifications were prepared.

To investigate and if necessary improve fire safety in existing Government property, 88 fire protection engineering survey reports were made. This represented a substantial increase over previous years.

Provincial and Municipal authorities assisted in the work of improving fire safety in Government property by submitting 600 reports of their inspections of Federal buildings. Technical assistance and a \$5,000 grant was given to the Joint Fire Prevention Committee of the Canadian Fire Marshals and Fire Chiefs.

A series of 10 fire protection engineering standards for use by all responsible for the design, construction and maintenance of Government property was published with the approval of the Interdepartmental Federal Fire Prevention Committee. In addition, two new Technical Information Bulletins were prepared and circulated.

Three thousand copies of the 40th Annual Report of the Dominion Fire Commissioner giving a statistical analysis of a decade of Fire Losses in Canada were distributed to Federal, Provincial and Municipal agencies, foreign government authorities and reference libraries.

The increase in fire prevention activities was reflected by increased use of the Branch film library which had 1,135 bookings for the year.

The Fire Marshal of the Northwest Territories, a member of the Fire Prevention Branch, appointed by the Commissioner of the Northwest Territories to administer the Fire Prevention Ordinance, made inspections of 17 communities. This was the result of three inspection tours extending over a period of 12 weeks. He also reviewed the plans and specifications of all proposed Federal and privately-owned buildings, making the necessary recommendations for the provision of adequate fire protection facilities.

Branch engineering and technical personnel served on committees of the National Research Council, Canadian Standards Association, Underwriters' Laboratories of Canada, the National Fire Protection Association (International), the Canadian Fire Investigation School, the Emergency Measures Organization, and the North Atlantic Treaty Organization.

INFORMATION SERVICES DIVISION

Through the various District Offices of the Department across Canada the Information Services Division was responsible during the year for the organization and control of numerous ceremonial openings for public buildings, public wharves, bridges and other structures. The Division also published *The Dispatch*, the staff magazine of the Department and operated a press clipping service covering 44 daily newspapers and 30 monthly magazines.

During the year the Division issued some 500 press releases announcing the award of contracts for public works projects. The Division also handled numerous statements and summaries in response to requests for information from reporters for daily and weekly newspapers, magazines, radio and television stations.

Answers to questions and returns put forward in the House of Commons and the Senate concerning the Department during Parliamentary Sessions were prepared by the Parliamentary Returns Section of the Division.

As of March 31, 1962, the Departmental Library contained some 16,600 catalogued books and periodicals, mainly of a technical nature, which are circulated to the District Offices as well as to the Headquarters staff, largely to aid them in keeping abreast of technical developments. The Departmental Librarian in responsible for the ordering of all books, periodicals and newspapers for the Department.

LEGAL SERVICES

This Division is responsible for furnishing legal advice to the Department; obtaining necessary authorization from the Treasury Board and from the Governor in Council for various departmental transactions; administering the *Ferries Act*, the *Navigable Waters Protection Act* and dealing with matters relating to navigable waters pursuant to the *Railway Act* and the *National Energy Board Act*; preparing formal contracts, leases, agreements and other legal documents and maintaining a depository of all legal documents to which the Department is party; acting as a liaison agency in interpreting the wishes of the Department in respect to the acquisition of lands; preparing reports of surplus, acquiring provincial water lots and performing other legal and quasi legal functions.

Under the amended *Navigable Waters Protection Act*, *Railway Act* and *National Energy Board Act*, a total of 421 approvals, declarations and orders were granted by the Minister. Correspondence from the public requesting information relating to the *Navigable Waters Protection Act* continued to increase.

Submissions directed to Treasury Board and Recommendations to Privy Council totalled 1,173. Formal contracts (involving an expenditure in excess of \$5,000) prepared by this Division totalled 893, including 445 contracts for engineering projects, 228 for construction and major repairs of existing buildings and 220 for maintenance and services. Contracts for maintenance and services have increased by approximately 100 over the previous fiscal year.

Three hundred and thirty-six title documents relating to individual parcels of land acquired by the Department were filed in Law Records Registry. The Crown acquired possession of 597 properties by means of new leases and renewal of existing leases. Seventy-seven leases and subleases of Crown-owned or Crown-controlled properties were granted to individuals or corporations.

Approximately 80 parcels of land (most of which had been utilized as sites for old Government buildings, together with the said buildings) which were no longer required for the use of the Department, were declared surplus to Crown Assets Disposal Corporation.

PERSONNEL BRANCH

During the latter part of the year the Personnel Branch conducted a series of intensive study periods using Bill C-71 and draft copies of the proposed Regulations in preparation for the promulgation of the new Civil Service Act and Regulations. Preliminary instructions and administrative guides were prepared to implement the new legislation effective April 1, 1962.

The Branch continued its close liaison with the Civil Service Commission in connection with recruiting and staffing procedures. A total of 207 competitions were held to fill vacancies within the Department. Of these 118 were inter-departmental or open to the public generally. The remaining 89 conducted by Personnel Branch staff were promotion competitions restricted to employees of the Department.

A special form of Appraisal was devised and used in two promotion competitions open to professional employees, as a step in a program of Management Development.

The Personnel Branch represented the Department at the review of staff estimates for the fiscal year 1961-62. The authorized strength of the Department was increased by 57 positions to a total of 9,420 positions distributed as follows:

Administrative and Professional.....	574
Technical, Operational and Services.....	5,589
Clerical.....	702
Prevailing Rate.....	2,024
Ships' Officers and Crews.....	531
	<hr/>
	9,420

Courses in Orientation and Letter and Report Writing were conducted for Headquarters personnel. A special Orientation and Supervisory Course was held in the Winnipeg District office with excellent staff reaction. The training program on improved cleaning methods and techniques for Cleaning Service Men and Women was extended to the Montreal and Toronto Districts. The Training Division also undertook responsibility for administering the Civil Service Commission Course in the Theory of Office Management, including the marking of assignments. Several courses and training assignments were also provided for visitors in the External Aid Program.

Increased staff interest and activity in the Suggestion Award Plan raised the level of participation to 3.8 per 100 employees which compares favourably with the average of 2.1 for all other Government departments in the plan.

During the year 808 suggestions were under consideration and decisions were made on 536 suggestions, at the end of March, 1962 the Suggestion Award Committee had 272 suggestions still under investigation. Department of Public Works employees were granted 66 awards with a cash value of \$1,215, representing first year savings to the Department estimated at \$10,200.

PURCHASING AND STORES BRANCH

Building maintenance supplies and construction materials for the Operating Branches of the Department and office furniture and furnishings for Government departments are purchased by the Branch for issue in accordance with established regulations and standards. Also, all fuel requirements for Federal buildings, dredges, etc., are secured through the Purchasing and Stores Branch. To a lesser degree, the Branch also purchases residential furniture and furnishings for Rideau Hall, the Prime Minister's residence, and for premises under the jurisdiction of this Department in the North. Maintenance supplies and construction materials are obtained at the request of the branches concerned, whereas furniture and furnishings are secured from funds provided by this Branch in the estimates for that purpose. The control of furniture issues is also the responsibility of Purchasing and Stores. Fuel payments are the responsibility of the Branch concerned or the Agency for which the fuel purchase was effected.

The Purchasing and Stores Branch received requisitions for a wide variety of items from 118 organizations which included 72 Federal departments and agencies, other than areas under the direction of the Department of Public Works. These requisitions numbered 18,474 in 1961-62, an increase of 4,670 over the previous year. This increase was attributable, in part, to the re-submission of requests to replace existing furniture where such requisitions had previously been rejected on the grounds that the items concerned were serviceable for a further period of one or two years. The remainder of the requisitions were occasioned by the expansion of services in various departments.

The Department's program of providing winter employment wherever possible resulted in a large number of construction projects being undertaken during these months and, consequently, requisitions from Operating Branches for materials, etc., were also received in the Branch at this time. In addition, furniture orders were so placed as to ensure that manufacture was continuous throughout the winter months.

As far as practicable, the Branch increased bulk purchasing and thereby effected a considerable reduction in the cost of its purchases.

Total purchases at Headquarters were 6,470, compared with 6,196 for 1960-61. This increase coincides with the number of requisitions received. These purchases resulted in 9,458 invoices being processed for payment by Headquarters staff.

Headquarters purchases totalled \$11,095,400 and this decrease from \$12,000,000 expended in 1960-61 reveals the savings established by bulk purchasing and other efficient practices when viewed against the increase in requisitions and purchase orders. The District offices effected a total of 33,500 local purchases, valued at approximately \$3,700,000, and processed over 67,000 invoices through District Treasury offices.

Purchases in the amount of \$70,226 were made for 17 departments or agencies on a recoverable basis and resulted in the payment of 566 accounts.

The Investigation staff reviewed or investigated 12,465 requisitions apart from 6,009 special requisitions which were considered by the departmental Operating Branches and the Senior Stores Control Officer. The overall saving effected by investigations was approximately \$250,000.

Furniture and furnishings now held by Government departments, etc. are estimated to the value of \$42,514,466.

Liaison with the Departmental Specification Committee on Materials and Equipment has secured up-to-date specifications for many items purchased in quantity and their French counterparts ensure that all firms have access to detailed specifications in both languages, thus preventing any possible mis-interpretation. A joint working committee has been formed with the Department of National Defence to produce and revise specifications applicable to both departments.

The Branch has large Area Stores at Ottawa, Montreal and Toronto, and smaller storage facilities in St. John's, Nfld., Halifax, Saint John, N.B., Quebec City, Winnipeg, Saskatoon, Edmonton, and Vancouver to provide distribution services. The maintenance and operation of these depots are administered by appropriate field officers and Headquarters staff.

Applications for Write-Off of furniture, etc., were considered at 10 Survey Boards, and 222 Reports of Surplus were forwarded to Crown Assets Corporation for disposition. Survey Boards conducted in the Districts resulted in the submission of 92 declarations to Headquarters.

PROPERTY AND BUILDING MANAGEMENT BRANCH

The Property and Building Management Branch is responsible for the administration of the Public Works Act as it affects the acquisition and maintenance of properties and buildings housing Government departments. This involves the administration of approximately 1,500 Crown-owned buildings and some 1,500 leased premises, with a total area of 31,000,000 square feet, of which approximately 5,000,000 square feet is leased.

The total cost of occupying and maintaining these premises, during the fiscal year, amounted to \$45,915,088.23 including the rental cost of leased premises amounting to \$7,561,598.48. The following is the space distribution together with the costs of occupancy and maintenance by location:

NET USABLE AREA

Location	Crown-Owned		Leased		Cost
	No.	Sq.Ft. (1,000's)	No.	Sq.Ft. (1,000's)	
Newfoundland.....	99	329	31	46	\$ 711,559.23
Nova Scotia.....	97	708	64	195	1,311,802.70
Prince Edward Island.....	12	156	7	3	220,351.79
New Brunswick.....	74	649	57	166	1,056,503.59
Quebec.....	290	4,216	307	904	7,636,359.08
Ontario.....	340	5,096	344	911	7,767,558.95
Manitoba.....	82	1,147	82	125	1,811,466.45
Saskatchewan.....	128	1,195	163	126	1,418,503.37
Alberta and N.W.T.....	119	1,299	167	235	2,028,316.21
British Columbia and Y.T.....	142	2,340	136	314	3,455,767.47
New York.....	—	—	1	3	26,286.65
London, England.....	1	110	9	10	368,251.77
Ottawa-Hull.....	132	8,767	112	1,947	18,102,360.97
	1,516	26,012	1,480	4,985	\$45,915,088.23

The active leases in effect at March 31, 1962, totalled 1,782 of which 1,480 were for various types of accommodation and 302 for miscellaneous rental agreements covering easements, sidewalk areas, etc.

Three hundred and ninety-nine properties were acquired for building sites at a cost of \$4,927,502.00. An additional 659 properties were in various stages of acquisition at the close of the fiscal year at an estimated cost of \$14,003,595.00. There was an increase during the year in the acquisition of sites for other Government departments.

Another responsibility of the Branch is the determination of the need, size and functional requirements of new buildings to be constructed by the Department, as well as the rehabilitation and conversion of existing buildings. During the year recommendations were prepared covering 150 buildings involving 2,000,000 square feet of new or renewed space. In addition a review of accommodation requirements was made of numerous space allocations in existing Crown-owned buildings and under leasehold. This review is part of the responsibility leading towards the determination, establishment and maintenance of accommodation standards.

Where Crown-owned space became available by reason of the transfer of units of Government from one location to another, every effort was made to secure a financial return by the leasing of such vacant areas at commercial rates. During the year \$253,511.55 in revenue was realized in this manner. In addition rents collected from occupants at Crown-owned housing administered by the Department totalled \$1,354,352.80. Public telephones located in Federal accommodation yielded commissions of \$24,076.51.

The Branch is organized into three functional divisions at Headquarters, the Lands Division, the Accommodation Division and the Operations Division, and is represented by 13 district offices in Canada and one in London, England.

HARBOURS AND RIVERS ENGINEERING BRANCH

During the year this Branch was responsible for construction and repairs to over 1,800 projects including wharves, breakwaters, protection works and other harbour facilities. A total of 82 projects were still in progress at the end of the fiscal year.

Dredging was carried out in 290 locations, involving the removal of 9,692,330 cubic yards of material. Locks, dams and drydocks were maintained and a fleet of dredges, scows, tugs, inspection and survey boats operated to carry out the departmental program.

Newfoundland

The modernization of the Port of St. John's continued with increased impetus. The finger pier measuring 390 feet by 1,140 feet, located at the bottom of a pear-shaped harbour, was completed. A contract for the construction of two transit sheds, one 340×115, the other 310×460, was awarded, with work on both well advanced. A contract to dredge the North Shore of the harbour for a distance of 3,000 feet, place fill for a four-lane road and marginal wharf was awarded with the work about 50% completed by the end of the year. Completion date for the entire project is late summer 1963.

Work continued on the two terminals being constructed for the C.N.R. at Corner Brook and Lewisporte. The Corner Brook job is about 80% completed and will be ready to operate by late summer 1962. The new terminal will greatly facilitate the C.N.R. service to the West coast of Newfoundland and Labrador. Work also continued at Lewisporte where a steel sheet pile finger wharf providing 980 feet of docking face was constructed. Suitable trackage and a shed 420×70 was constructed on the wharf. When completed late in 1962 the wharf will serve as a base for all C.N.R. operations between St. John's, the North East coast of Newfoundland and Northern Labrador.

The program to construct community stages which began in 1960 for the Department was completed. These stages are all being used to good advantage and have increased both the quantity and the quality of fish produced.

Nova Scotia

A contract for harbour improvements at Dingwall was awarded and work was well advanced by the end of the year. This project was designed by the National Research Council following extensive model studies. The improvements

are intended to serve the dual purpose of providing a protected harbour and the elimination of the high maintenance dredging costs previously experienced. The entrance to the North Pond, adjacent to Dingwall harbour, is to be closed and the main channel dredged to a depth of 12 feet below L.W.O.S.T.

Progress was made on the construction of a public wharf at Yarmouth. This structure is virtually fireproof, incorporating steel H piles, precast concrete panels in lieu of conventional bracing and a concrete deck. This type of construction is unique in this province and required the piling to be driven to very close tolerances. Provision had been made in the design of the structure for a future rail line.

Work proceeded in the provision of marine facilities for the Bedford Institute of Oceanography being carried out for the Department of Mines and Technical Surveys. The construction of the concrete crib wharf was virtually completed at an approximate cost of \$1,100,000.

Prince Edward Island

Harbour improvements are continuing at Wood Islands with the completion of the west breakwater due in the summer 1962. Wood Islands is the terminal on Prince Edward Island for the ferries plying between Prince Edward Island and Nova Scotia. The present project will, when completed, provide a wider entrance and larger basin to facilitate docking the ferries.

The largest single project in progress is the construction of the marine agency wharf for the Department of Transport in Charlottetown. Work commenced on this project in November 1961 at a cost of approximately \$1½ million.

New Brunswick

At Saint John, dredging in Courtenay Bay Channel was continued in order to maintain an adequate water depth for the ship traffic now moving to and from the oil refinery and dry dock in East Saint John. In addition, the Negro Point breakwater was further extended to within 550 feet of Partridge Island. The Fisherman's Wharf at North Head was extended in creosoted cribwork to provide accommodation for the larger type boats now included in the Bay of Fundy fleet. On the north shore of the province, improvements were made to the harbour at Shippegan in the form of reconstructing the Deep Water wharf and dredging the berthing areas at all wharves in this community.

Quebec

The overall development of Baie Comeau harbour, planned during the previous year, was started in conjunction with the Quebec North Shore Paper Company, Quebec Hydro Power Commission and the Provincial Department of Lands and Forests. The harbour was dredged to a depth of 28 feet below low water level to provide berths and turning basin. A private wharf was built to handle construction equipment, materials and pulpwood. A contract was awarded to extend the main Government Wharf by 1,000 feet using a unique design to provide a combined breakwater and loading wharf for pulpwood. Plans were also prepared for a future general cargo and ferry wharf.

The development of the North Shore area is also leading to increased cross-river traffic with a consequent demand for improved ferry services for automobiles, passengers and cargo. A roll-on, roll-off ferry service was inaugurated between Point-au-Pere on the south shore and Baie Comeau on the north shore. Plans were made for a new ferry terminal at Matane to improve ferry service between Matane and Godbout. At Sept-Iles improvements of existing facilities continued.

At Anse-aux-Basques, located near Les Escoumains, the establishment of a pilotage station to replace the former station at Point-au-Pere was started. The roadway leading to the station was built and a contract was awarded for wharfage facilities.

In order to provide a deep-water wharf in the Baie St-Paul-Les Eboulements area, plans were prepared to rebuild the existing wharf at Les Eboulements with steel sheet piling mainly to maintain existing services, but with the possibility of providing 25 feet of water along the outer face.

Ontario

Construction of the \$8½ million Lakehead Harbour Terminal has favourably progressed so as to meet a scheduled completion date for the opening of navigation in 1962. Six of the ten contracts involved have been completed. The remaining four have been awarded and will be completed by early summer 1962.

Major works were carried out in Hamilton, Port Credit and Toronto harbours for accommodation of Seaway traffic. Also associated with Seaway requirements, improvements in facilities were provided at Cobourg, Collingwood, Oshawa, Parry Sound and Whitby. The trend in Great Lakes shipping has been to fewer but larger vessels of deeper draft.

Manitoba

During 1961-62, a new breakwater was constructed on the south side of Gimli harbour.

Extremely low water levels in Manitoba brought about more than the usual requests for dredging, and low-level ramps had to be installed in several wharves to facilitate the loading and unloading of vessels.

British Columbia and the Yukon

Variety of work continued as the keynote of the works carried out both for this Department and for other departments throughout British Columbia and the Yukon Territory. Major projects completed during the year were the reconstruction of the Nanaimo Lumber Assembly wharf, the construction of the Hopper Dredge "Fort Langley", and dredging of the channels in the Fraser River.

Eighteen separate projects were undertaken for other departments, of which fifteen were completed. These projects included wharf and float construction, drainage system, concrete repair work, boat house repairs, telephone line, painting and general construction and repair jobs.

A public hearing on the Fraser River Trifurcation area project was held, and detailed structure designs have been started for the proposed river-control works.

At five settlements on the Mackenzie River, floating wharves and gangplanks are being installed for the first time to give wharf service to these growing communities.

Development in the Arctic of new settlements and new services require an increasing amount of materials to be shipped on the Mackenzie River. Shallows and rapids require improvements for the large boats that travel the river. A new survey vessel, the "Hugh A. Young", was put into service. The commissioning of this vessel is one more step towards the development of the North. Its purpose is to probe the mysteries of the Mackenzie with a view to continued improvement of navigation.

DEVELOPMENT ENGINEERING BRANCH

The activities of the Branch are principally in the field of highway and bridge construction. The Branch acts, on the one hand, as a contract and administrative agency in connection with agreements between Canada and the provinces under the Trans-Canada Highway Act and the Roads-to-Resources program, and, on the other, as a construction agency in the National Parks and the Territories. The latter facet includes the construction of the Trans-Canada Highway where it traverses Federal property.

The Branch, however, also undertakes a wide range of engineering projects and consists of four divisions as follows:

Engineering and Construction Division is responsible for surveys, design and supervision of construction of a variety of undertakings including highways, water and sewage systems, and the investigation of major projects of a special nature. The projected causeway to Prince Edward Island is one such undertaking. This Division also has direct responsibility for the administration of the Trans-Canada Highway Act and to the Department of Northern Affairs and National Resources for technical advice and preparation of claims under the Road-to-Resources agreements;

Structures Division designs bridges and structures such as the snow-sheds in Rogers Pass and projects which are the direct responsibility of the Branch. It also reviews all similar undertakings carried out by the provinces under the terms of the Trans-Canada Highway Act and the Roads-to-Resources program;

Testing Laboratories, with a main laboratory at Ottawa and a branch at Banff, Alberta, conducts soil borings, material investigations and carries out tests on materials used or purchased by other branches of the Department and by Government agencies;

Technical Co-Ordination and Administration Division is responsible for all aspects of technical co-ordination, contracts and general administration within the Branch.

TRANS-CANADA HIGHWAY AND ROADS-TO-RESOURCES AGREEMENTS

The Trans-Canada Highway Act, and amendments thereto, provide for Canada's participation in the cost of construction of the Highway. Under the agreements with the Provinces authorized by this legislation, Canada contributes 50% of the cost of constructing the Highway, plus an additional 40% on one-tenth of the mileage of the Highway in each province. The existing legislation limits the aggregate amount that Canada may contribute to \$400 million, and payments may be made until May 31, 1964, for work done up to December 31, 1963.

Full details of the progress of construction, commitments accrued and payments made to each province under the agreements may be found in the "Report of Proceedings under the Trans-Canada Highway Act" for the fiscal year ended March 31, 1962.

The Branch also administers the Federal Roads-to-Resources agreements with the provinces on behalf of the Department of Northern Affairs and National Resources. Under this program agreements have been entered into with the provinces to provide for Canada's contribution to the cost of constructing resource development roads. The extent of the Federal contributions is 50% of the cost of constructing approved roads, up to a maximum of \$7.5 million for each province.

FEDERAL CONSTRUCTION PROJECTS

While a detailed tabulation of the various construction projects (other than those under Trans-Canada Highway and Roads-to-Resources agreements) undertaken by the Branch will be found on page 44, the following paragraphs outline some of the more interesting activities in various parts of the country.

Newfoundland

Surveys were carried out on behalf of the Department of Transport for new access roads to the light stations at Cape Race and Cape Ray, and surveys and designs were completed for the proposed reconstruction of Eastport Road, including the Sandy Island Causeway.

Prince Edward Island

Reconstruction of the Gulf Shore Road in Prince Edward Island National Park was completed with the paving of the final section between Rustico and New London. The total cost of this project was some \$2,700,000. Construction of the proposed \$2,000,000 Rustico Harbour Bridge was postponed pending the completion of moveable bed model studies of the harbour area which are being made by the National Research Council.

Feasibility studies of the proposed causeway to link Prince Edward Island to the mainland were continued during the year with an important part of the work being the construction of a scale model of the cross-section by the National Research Council. On the basis of the information collected, it has been accepted that this project is technically feasible and economically justified. The Government has now announced its intention to proceed with this important undertaking.

New Brunswick

The \$5 million Campbellton, N.B., to Cross Point, P.Q., bridge was completed during the year and scheduled to be opened on August 19, 1962, by the Honourable Hugh John Flemming. A contribution of \$236,000 was also made towards Canada's share of the Roosevelt Memorial Bridge between Lubec, Maine, and Campobello Island, N.B.

Nova Scotia

In Cape Breton Highland National Park the reconstruction of the Cabot Trail was brought close to completion. The highway has been reconstructed and paved to mile 33.5 and work on the remaining portion of the present program, consisting of grade improvements and repaving for approximately seven miles between Effie's Brook and Neil's Harbour was commenced in 1961. This phase was 55% completed before the end of the construction season. Expenditures on this project to date total approximately \$6.5 million.

Quebec

In 1961-62 the District office in Quebec completed its first full year of operation. This office was established following the entry of Quebec into agreements with Canada under the Trans-Canada Highway Act and the Roads-to-Resources program. The Province has undertaken a very extensive program particularly in the Trans-Canada Highway field where Canada's share of the construction costs are presently estimated at some \$90,000,000.

Ontario

The principal project was the construction of the low level lift bridge over the canal at Burlington. Expenditures during the year amounted to some \$1.4 million and construction was so far advanced that railway traffic began to use the bridge in March, 1962.

Major repairs were carried out, during the winter months, on the Chaudiere Bridge which leads from Ottawa to Hull, and a wide variety of engineering work, including drainage improvements and surveys, was carried out in the greenbelt area of the National Capital and at the Central Experimental Farm.

Manitoba

In the Fort Churchill area work was commenced on a water supply system for various Federal communities. This undertaking, which is expected to cost some \$1.3 million, will provide an adequate supply of water from the Churchill River for both present and anticipated future requirements not only at the present site but at a future location should discussions being conducted with the Province of Manitoba result in the re-location of the town-site. Work in 1961-62 consisted of the construction of water mains, intake structure and an access road to the pumphouse which will be constructed in 1962-63. In this area work was also completed on the installation of a water and sewage system at Eskimo Camp 20.

Saskatchewan

Construction began on the Halkett Lake and Crean Lake roads in Prince Albert National Park, involving an expenditure of some \$200,000 during the year. Other projects included completion of a water and sewage system at the Dominion Experimental Farm at Indian Head and the replacement of water and fire mains at the R.C.M.P. barracks in Regina.

Alberta

In Banff National Park application of the final lift of paving on the remaining 37 miles of the Trans-Canada Highway, and the construction of the Eisenhower Interchange at the junction of the Trans-Canada Highway and Banff-Windermere Highway was commenced. Expenditures amounted to \$848,000 and both projects will be completed in 1962-63. The reconstruction of Banff Avenue in the Town of Banff was also completed during the year.

Some \$3.25 million was expended on the reconstruction of the Banff-Jasper Highway. Grading on this project has now been carried to Mile 104.5 with the exception of a small portion between Mile 67 and Mile 74, and is well advanced between that point and Mile 115 and between Mile 125 and Mile 140. The bituminous surfacing was completed for the first 67 miles and in addition the first lift was placed on a 22½ mile section between Mile 74 and Mile 96.5. Plans call for awarding a contract in 1962 to complete the bituminous pavement to Mile 104.5. During the year under review construction was also started on the Athabasca River Bridge and on the spectacular arched bridge which spans the Nigel Creek gorge.

Other major undertakings during 1961-62 included the start of construction on the first 11 miles of the Jasper-Edmonton Highway, a scenic road between Medicine Lake and Maligne Lake, and the commencement of reconstruction of the Chief Mountain Highway in Waterton Lakes National Park. A number of surveys were also carried out, including work on the Jasper-Yellowhead Highway.

British Columbia

On the Trans-Canada Highway, the final lift of bituminous concrete pavement was applied to the first 16 miles in Yoho National Park and the application of a bituminous stabilized base course surface was sufficiently far advanced to ensure early completion in the next season. The first phase of the avalanche defence program was continued, with all the earth works and three of the five snowsheds virtually completed during the year. A contract for construction of the remaining snowsheds was awarded in February, 1962. Expenditures on the Trans-Canada Highway in these parks amounted to \$4,134,000.

In Kootenay National Park an additional \$1,274,000 was expended on the reconstruction of the Banff-Windermere Highway, which now has a bituminous stabilized base course surface to Mile 56.2, with grading operations between that point and Mile 62.4 approximately 85% completed. The final 2½ mile portion of this road involves many difficult and unusual engineering problems. Among the most interesting of these will be the construction of a tunnel through the Iron Gates, which is complicated by the necessity of avoiding any damage to the underground sources of the famous Radium Hot Springs, and stabilization of the vertical rock face of Sinclair Canyon. In addition, the highway is to be realigned in the Acquacourt area and all primary utilities in the townsites renewed. It is expected that the engineering studies involved will preclude the final phase of construction from being undertaken prior to 1963-64.

Yukon Territory

During 1961-62 the Branch expended almost \$4,000,000 on projects in the Yukon Territory, with nearly \$1,000,000 of this being required for the Flat Creek to Eagle Plain Road which is now completed to Mile 74.

On the Watson Lake-Ross River Road crews were working both north from Watson Lake and south from Ross River. Before the onset of winter, grading had been completed for some 20 miles from Ross River and carried up to Mile 68 from Watson Lake. During the winter months local labour was employed in clearing the right-of-way to Mile 100 from Watson Lake in anticipation of the 1962-63 construction season, and the right-of-way was also extended from 60 to 100 feet in width from Mile 0 to Mile 68. Location surveys were carried out between Mile 100 and Mile 200 and an aerial survey was made of the projected route from Ross River to Carmacks.

Construction of an 80-mile pioneer road from a point near Mile 65 on the Watson Lake-Ross River Road towards the tungsten deposits in the Nahanni Range was commenced, with grading operations being completed to Mile 75.

Other projects included construction of the McQuesten River Bridge and the Ogilvie River Bridge over the Klondike River on the Stewart Crossing-Dawson Road, both of these structures being virtually completed.

Northwest Territories

The extension of the Mackenzie Highway to Yellowknife, which has been renamed "The Great Slave Highway", was completed and the road regavelled from Fort Providence to Frank's Channel. The access road from the highway to Fort Rae was completed and the steel highway ferry on the Mackenzie River was placed in operation. The total cost of this large project has been some \$12.8 millions.

Work was also begun on extending the Great Slave Highway eastward from Yellowknife towards MacKay Lake. The first 20 miles were constructed to pioneer road standards and building commenced on the bridge over the Yellowknife River. Reconstruction of the Mackenzie Highway from Hay River to the Alberta border, a total distance of some 76 miles, was carried out during the year. The first 25-mile section was open to traffic on August 31 and by the end of the construction season grading was 90% completed to Mile 51.

Various surveys were undertaken during the year, including a road survey from Hay River to Pine Point and Fort Smith.

Total expenditures in the Northwest Territories were \$2.3 millions.

Wood Buffalo Park

In Canada's largest National Park, which lies within both the Northwest Territories and the Province of Alberta, construction began on a development road extending for some 38 miles from Pine Lake to Peace Point. Future plans call for this road to be built to the west boundary of the Park, clearing of the route was carried out in previous years.

Miscellaneous

Another major interprovincial project was commenced by the Branch in 1961-62. This was the new Macdonald-Cartier Bridge between Ottawa, Ontario, and Hull, Quebec. During the year a joint-venture firm of consultants was retained to prepare preliminary designs. It is estimated that this structure will cost nearly \$11 millions, with Canada's share being some \$3.6 millions, and a contract for its construction is expected to be awarded during 1962-63.

At the request of the Emergency Measures Organization, the Branch organized a survey of Federal buildings throughout Canada to determine the protection they afforded against radio-active fall-out. Some 5,000 buildings were checked and reported upon. During the course of the survey, computer techniques were developed for calculations and records which have since, it is understood, been adopted by the United States.

Testing Laboratories

The demand for the services of the Testing Laboratories continued to show the growth that has characterized recent years and the number of samples received increased by almost 14% over the previous year. During 1961-62 a drilling program was undertaken on behalf of the Geological Survey of Canada and there was a substantial increase in the number of tests of soils foundation and embankment materials which is an integral part in the planning of all structures erected by the Federal Government. Another field of testing was also entered during the year with the addition of apparatus for testing R.C.A.F. jet fuel filter-water separators.

BUILDING CONSTRUCTION BRANCH

Contracts for new construction, including additions and extensive alterations and improvements to 221 Federal Buildings and other premises occupied by Government departments were awarded during the fiscal year 1961-62. Work was still in progress on 187 projects at the end of the year.

Contracts for a number of important buildings were awarded during the year including the following: the Veterans Wing Pavilion, St. John's, Nfld.; Indian Residential School, La Tuque, Que.; Administration Building for National Health and Welfare, Ottawa, Ont.; School and Gymnasium Buildings for Citizenship and Immigration, Ohsweken, Ont.; Dormitory Building and addition to Laundry Building for Citizenship and Immigration, Dauphin, Man.; Administration Building and Garage for Royal Canadian Mounted Police, North Battleford, Sask.; School Triplex and Pumphouse for Citizenship and Immigration, Brocket, Alta.; Federal Building, Vancouver, B.C.; and an addition to the Dormitory Building for Northern Affairs and National Resources, Yellowknife, N.W.T.

The construction program in progress across the country included the following main projects:

St. John's Newfoundland, Veterans Wing Pavilion.

A three-storey semi-circular addition to the existing General Hospital with part basement (247 feet by 44 feet) of combined steel reinforcing and concrete framing with brick veneer including stone trim on the exterior walls. Total floor area of 29,344 square feet.

Kentville, Nova Scotia, Federal Building.

A rectangular two-storey building with basement (69 feet by 122 feet) of structural steel framing and masonry exterior walls covered with brick and stone trim. Total floor area of 15,153 square feet.

St. Hyacinthe, Quebec, Federal Building

A rectangular two-storey building with partial basement (103 feet by 131 feet) of reinforced concrete framing and masonry exterior walls covered mainly with brick together with porcelain enamelled panels and granite stone. Total floor area of 24,288 square feet.

Verdun, Quebec, Federal Building (U.I.C.)

A two-storey building with partial basement (85 feet by 211 feet) of reinforced concrete framing and masonry walls covered with brick and artificial stone trim. Total floor area of 32,283 square feet.

Ohsweken, Ontario, School and Gymnasium Building

An L-shaped one-storey building with partial basement (138 feet by 153 feet) of combined wood and structural steel framing with wood siding on the exterior walls. Total floor area of 19,003 square feet.

Ottawa, Ontario, Administration Building (N.H.&W.)

A rectangular sixteen-storey building (95 feet by 145 feet) with full basement (291 feet by 291 feet) of reinforced concrete framing with precast concrete exterior walls covered with granite trim at certain locations. Total floor area of 296,268 square feet.

Ottawa, Ontario, Federal Building (U.I.C.)

A rectangular two-storey building (87 feet by 100 feet) of structural steel framing with masonry exterior walls covered with brick. Total floor area of 15,660 square feet.

Dauphin, Manitoba, Dormitory Building (C. & I.)

A two-storey rectangular building with full basement (45 feet by 129 feet) of structural steel framing with masonry exterior walls covered with brick. Total floor area of 10,450 square feet.

North Battleford, Saskatchewan, Administration Building (R.C.M.P.)

A T-shaped two-storey building with full basement (53 feet by 109 feet) of reinforced concrete framing with masonry exterior walls covered with brick and porcelain enamelled panels at certain locations. Total floor area of 10,400 square feet.

Brocket, Alberta, Six-classroom School (C. & I.)

A one-storey building with basement (62 feet by 204 feet) of wood framing throughout with wood siding on the exterior walls. Total floor area of 14,580 square feet.

Vancouver, British Columbia, Federal Building

A rectangular two-storey building with full basement (100 feet by 266 feet) of reinforced concrete framing with masonry exterior walls covered with brick. Total floor area of 47,880 square feet.

Yellowknife, Northwest Territories, Addition to Dormitory Building (N.A. & N.R.)

An irregular-shaped one-storey building with partial basement (87 feet by 140 feet) of combined masonry and structural steel framing with masonry exterior walls covered with vertical cedar siding. Total floor area of 10,962 square feet.

The program for the accommodation of the Justice Department (R.C.M.P.) is still being continued. Twenty-two contracts for buildings known as R.C.M.P. Detachment Quarters were awarded, two of which were completed and 20 are still in progress.

The program for the accommodation of the Department of Citizenship and Immigration has substantially increased during this fiscal year; twenty-three contracts were awarded (not including occupation in Federal buildings) all of which are in progress.

Good progress was made during the year on the following large projects, contracts for which were awarded during the previous fiscal year:

Halifax, Nova Scotia.....	Addition and alterations to Federal Building
Dartmouth, Nova Scotia.....	Oceanographic and Hydrographic Research Station
Moncton, New Brunswick.....	Addition and alterations to Federal Building
Saint John, New Brunswick.....	Stores and Administration Building
Quebec, Quebec.....	Postal Terminal Building
Montreal, Quebec.....	Veterans Affairs Building
London, Ontario.....	Postal Terminal Building

Toronto, Ontario.....	Postal Station "F"
Regina, Saskatchewan.....	National Revenue Building
Calgary, Alberta.....	Postal Terminal—Mail Handling Equipment
Penticton, British Columbia.....	Federal Building
Inuvik, Northwest Territories.....	Federal housing

Contracts were awarded for 66 Post Office buildings throughout the country each costing not over \$25,000, most contracts being awarded during the fall of 1961 in order to stimulate winter employment.

Details of these works will be found in the Building Construction section of the Report, Page 37.

HARBOURS AND RIVERS ENGINEERING BRANCH

Gerald Millar, Chief Engineer

Location	Date work began	Description
NEWFOUNDLAND		
Bell Island-Portugal Cove.....	Sept. 1931	Repairs and modifications of ferry terminals for Department of Transport. Completed.
Black Duck Cove.....	June 1961	Construction of L-shaped wharf. Completed.
Bonavista.....	June 1961	Inner half of Mockbeggar Wharf repairs; outer half reconstructed of creosoted cribwork. Completed.
Bonavista.....		Contract awarded to construct slipway. Work not started.
Burgeo.....	July 1961	Construction of wharf. Completed.
Burlington.....	Sept. 1961	Reconstruction of wharf. In progress.
Burnt Island.....	Aug. 1961	Repairs to wharf. Completed.
Codroy.....		Reconstruction of wharf. Not started.
Codroy.....	July 1960	Dredging of entrance channel and basin in harbour. Completed.
Codroy.....	Oct. 1961	Repairs and strengthening of breakwater. In progress.
Conche.....	June 1960	Community stage and wharf for Department of Fisheries. Completed.
Corner Brook.....	Jan. 1960	Construction of railyard facilities for C.N.R. Completed.
Corner Brook.....	May 1960	Construction of wharf and shed for Department of Transport. Completed.
Cow Head.....	June 1961	Repairs to breakwater. Completed.
Ferryland.....	May 1961	Dredging of entrance channel and basin. Completed.
Fortune.....	June 1961	Reconstructed creosoted timber and rubble mound breakwater. Completed.
Gaultois.....	July 1961	Acquired and repaired wharf. Completed.
Goose Bay (Happy Valley).....	Aug 1959	Construction of wharf and shed. Completed.
Gull Island.....	Aug. 1960	Construction of wharf. Completed.
Harry's Harbour.....	June 1961	Construction of wharf. Completed.
Isle aux Morts.....	Aug. 1961	Construction of wharf. In progress.
Jackson's Arm.....	Aug. 1961	Reconstruction T-shaped wharf. Completed.
Keels.....	Oct. 1961	Construction of wharf. Completed.
Lamaline.....	July 1961	Dredging the approaches to and two small basins. Completed.
L'Anse au Loup.....	July 1961	Construction of L-shaped wharf. Completed.
Lewisporte.....	Oct. 1960	Construction of wharf extension and shed for Department of Transport. In progress.
Lord's Cove.....	July 1961	Construction of wharf. Completed.
Lower Island Cove.....	July 1960	Improvements to Fishermen's Landing facilities for Department of Fisheries. Completed.
Old Bonaventure.....	Nov. 1961	Dredging a channel. Completed.
Peter's River.....	Oct. 1961	Landing area improvements. Completed.
Petty Harbour.....	July 1961	Construction of wharf extension. Completed.
Petty Harbour.....	July 1961	Dredging of basin. Completed.
Point Lance.....	Sept. 1961	Construction of community stage for Department of Fisheries. Completed.
Portugal Cove South.....	June 1961	Construction of community stage wharf for Department of Fisheries. Completed.
Portugal Cove South.....	Oct. 1961	Construction of community stage for Department of Fisheries. In progress.
St Bernard's.....	July 1961	Reconstruction of breakwater. Completed.
St. Bride's.....	Sept. 1961	Repairs and improvements to breakwater. In progress.
St. John's.....	Jan. 1960	Construction of main terminal wharf. In progress.
St. John's.....	Mar. 1961	Construction of north shore roadway. In progress.
St. John's.....	July 1961	Construction of two transit sheds. In progress.
St. John's.....	Mar. 1962	Construction of two small freight sheds. In progress.
St. Joseph's (Pevies Pt.).....	Oct. 1961	Construction of breakwater. Completed.
Sandy Cove.....	Sept. 1960	Community stage and wharf for Department of Fisheries. Completed.
South Dildo.....	Aug. 1961	Acquisition and extension of wharf. In progress.
Twillingate.....	Sept. 1961	Coastal wharf repairs. Completed.
Wesleyville.....	June 1961	Reconstruction of half of existing structure. In progress.
Williams Harbour.....	June 1961	Construction of community stage for Department of Fisheries. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
PRINCE EDWARD ISLAND		
Charlottetown.....	Nov. 1961	Construction of Marine Agency Wharf. In progress.
Dredging Plant.....	Dec. 1961	Conversion of Dredge No. 20. Completed.
Georgetown.....	Sept. 1961	Queen's Wharf repairs. Completed.
Milligan's Shore.....	Feb. 1961	Construction of wharf. Completed.
Naufrage.....	May 1961	Dredging boat harbour. Completed.
Robinson's Island.....	June 1961	Construction of breakwater. Completed.
Skinner's Pond.....	Mar. 1961	Construction of pier extension. Completed.
Souris.....	July 1961	Railway wharf repairs. Completed.
Souris.....	June 1961	Wharf Acquisition and reconstruction. In progress.
Summerside.....	June 1961	Construction of an extension to Queen's Wharf. Completed.
Victoria.....	Oct. 1960	Repairs to wharf. Completed.
West Point.....	June 1961	Construction of breakwater. Completed.
West Point.....	June 1961	Repairs to existing breakwater. Completed.
Wood Islands.....	Sept. 1960	Demolition, dredging and construction of West Breakwater. In progress.
NOVA SCOTIA		
Alder Point.....	Nov. 1961	Wharf construction. In progress.
Bailey's Brook.....	Dec. 1961	Replacement of superstructure and erection of a wavebreak. Completed.
Bayfield.....	July 1961	Reconstruction of outer stem and ell. Completed.
Bay St. Lawrence.....	Nov. 1961	Dredging and Shore Protection. In progress.
Bear Point.....	Feb. 1961	Reconstruction and extension to "T" section of wharf. Completed.
Bedford Basin, Halifax.....	June 1960	Dredging approaches and berths for Oceanographic and Hydrographic Research Station for Department of Mines and Technical Surveys. Completed.
Bedford Basin, Halifax.....	Aug. 1960	Construction of wall and jetty for Department of Mines and Technical Surveys. Completed.
Bedford Basin, Halifax.....	Dec. 1961	Constructing floating fenders for Quay Wall and Breakwater for Department of Mines and Technical Surveys. Completed.
Camp Cove.....	April 1961	Wharf extension. Completed.
Canso (The Tickle).....	June 1960	Construction of timber block and spur wharf. Completed.
Caribou.....	Sept. 1960	Repairs and improvements to Ferry Terminal wharf and construction of Finger Wharf for Fishermen. Completed.
Chapel Cove.....	Aug. 1961	Groyne extension. Completed.
Chester Ironbound.....	May 1961	Centre section of breakwater reconstructed. Completed.
Church Point.....	Feb. 1961	Construction of rock mound groyne. Completed.
Clarke's Harbour.....	June 1961	Reconstruction of outer 493 feet of wharf. Completed.
Comeauville.....	June 1961	Repairs to isolated breakwater and joining to main breakwater. In progress.
Dartmouth.....	Nov. 1961	Removal of Windmill Pier. Completed.
Digby.....	April 1961	Annual Maintenance of Spur and Main Wharves by Day Labour. Completed.
Digby.....	June 1961	Redredging a mooring basin. Completed.
Dingwall.....	July 1960	Breakwater construction and dredging. In progress.
Finlay Point.....	Dec. 1961	Retaining Wall and Dredging. In progress.
Georges Island, Halifax.....	April 1961	Wharf reconstruction for Department of Northern Affairs. Completed.
Glace Bay.....	July 1961	Redredging the entrance and harbour. Completed.
Halifax.....	July 1961	Repairs to Quay Wall at H.M.C. Dockyard for Department of National Defence (Navy). Completed
Indian Harbour.....	Sept. 1961	New wharf. Completed.
John's Island.....	Sept. 1961	Reconstruction of stem portion of wharf. In progress.
Kelly's Cove.....	Nov. 1960	Repairing deck of breakwater in concrete and widening structure. Completed.
Lahave.....	Feb. 1962	Wharf reconstruction and extension. In progress.
Lahave River.....	Oct. 1961	Redredging channel. Completed.
Little River.....	Mar. 1961	Redredging channel and mooring basin. Completed.
Liverpool.....	June 1961	Redredging mooring basin. Completed.
Lockeport.....	May 1961	Construction of new breakwater. Completed.
Lunenburg.....	Nov. 1960	Reconstruction of superstructure of railway wharf. Completed.
Malagash.....	April 1962	Cutting down steel sheet piling and replacing with concrete cope wall. Completed.
Margaree Harbour.....	Aug. 1961	Reconstruction of outer end of east breakwater. Completed.
Mulgrave.....	Feb. 1960	Construction of wharf and quay wall. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>NOVA SCOTIA—Continued</i>		
New Haven.....	Feb. 1961	Cribwork wharf extension. Completed.
New Haven.....	Dec. 1961	Breakwater reconstruction. Completed.
Noel.....	June 1961	Wharf reconstruction. Completed.
Osborne.....	July 1961	Wharf reconstruction. Completed.
Parrsboro.....	Feb. 1961	Wharf reconstruction. Completed.
Parrsboro.....	May 1961	Reinforced breakwater with stone talus. Completed.
Pictou.....	Nov. 1959	Construction of warehouse on Old Pier "C". Completed.
Pictou.....	Feb. 1960	Quay Wall Reconstruction. Completed.
Pictou.....	May 1960	Demolition of fire destroyed structures. Completed.
Pictou.....	Mar. 1961	Reconstruction of Shed adjacent to Quay Wall. Completed.
Pictou.....	April 1961	Repairs to Crane on Quay Wall. Completed.
Pictou.....	May 1961	Reconstruction of Pier "C". In progress.
Pictou.....	Nov. 1961	Redredging of Pier "E". Completed.
Poirierville.....	Jan. 1962	Portion of ell of wharf reconstructed. In progress.
Port Bickerton East.....	Nov. 1961	Wharf reconstruction. In progress.
Port Maitland.....	June 1961	Reinforcing stone talus on seaward side of breakwater. Completed.
River Bourgeois.....	April 1961	Wharf reconstruction. Completed.
Salmon River.....	Sept. 1961	Reconstruction of 90 feet of Retaining Wall. Completed.
Saulnierville.....	Nov. 1960	Reconstruction and repairs to sections of wharf and dredging berths. Completed.
Sheet Harbour.....	June 1961	Redredging mooring basin. Completed.
Sydney.....	Sept. 1960	Reconstruction major portion wharf and facilities including new warehouse. Completed.
West Baccaro.....	Aug. 1961	Placing rock talus to reinforce existing breakwater. Completed.
West Berlin.....	June 1961	Replacement of breakwater-wharf. Completed.
Weymouth North.....	Aug. 1960	Reconstruction of sections pilework wharf. Completed.
Yarmouth.....	Nov. 1961	Construction of new wharf. In progress.
<i>NEW BRUNSWICK</i>		
Back Bay.....	Mar. 1961	Completing unfinished portion of wharf extension. Completed.
Bathurst.....	May 1961	Dredging entrance channel and turning basin at new wharf. Completed.
Boyne's Cove.....	July 1961	Dredging mooring basin. Completed.
Boyne's Cove.....	Mar. 1962	Construction of pilework wharf. In progress.
Caraget.....	Nov. 1961	Anchoring inner ell to deadmen with steel rods. In progress.
Curry's Cove.....	Mar. 1961	Enlarging approach of wharf to stabilize structure. Completed.
Dredging Plant.....	April 1961	Construction of 8" pipeline dredge No. 30. Completed.
Dredging Plant.....	July 1960	Construction of 90' Tug "Kellebrews" for Newfoundland. Completed.
Escuminac.....	July 1961	Rebuilding a section of main breakwater in cribwork and gravel fill. Completed.
Lord's Cove.....	Mar. 1961	Repairs to wharf extension which was damaged by fire. Completed.
Lorneville.....	Feb. 1961	Completion of final stage of construction of rubble mound breakwater. Completed.
North Head.....	June 1961	Construction of cribwork wharf extension. Completed.
Petit Rocher.....	Oct. 1961	Placing stone talus along outside of breakwater ell. Completed.
Richibucto Cape.....	July 1961	Repairing centre pier by intruding cement grout. Completed.
Saint John.....	Aug. 1961	Dredging Courtenay Bay Channel, turning basin and main Saint John Harbour channel. In progress.
Saint John (Courtenay Bay).....	Sept. 1959	Dredging of Courtenay Bay channel adjacent to main channel. Completed.
Saint John (Negro Point).....	May 1961	Construction of further extension of rock breakwater towards Partridge Island. Completed.
Shediac.....	Aug. 1961	Construction of new wharf consisting of gravel fill approach and cribwork block and span pierhead. In progress.
Shippegan.....	Aug. 1961	Dredging various areas in the vicinity of the Deep Water wharf, South Wharf and Ferry Wharf. Completed.
Shippegan.....	Sept. 1961	Reconstruction of Deep Water wharf by driving steel sheet piling around perimeter and backfilling with sand stone. In progress.
White Head.....	Aug. 1960	Construction of pilework wharf and dredging berths. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
QUEBEC		
Anse au Griffon.....	July 1961	Harbour improvements. Completed.
Anse-aux-Basques.....	May 1961	Construction of roadway to new Pilotage Station for the Department of Transport. Completed.
Anse-aux-Basques.....	Dec. 1961	Construction of Pilotage Wharf for the Department of Transport. In progress.
Anse du Cap (Cape Cove).....	Oct. 1961	Wharf repairs. Completed.
Baie-Comeau.....	May 1961	Dredging two areas to develop the harbour. Completed.
Baie Ste-Catherine (Anse-au-Portage).....	Oct. 1960	Repairs to wharf. Completed.
Barachois de Malbaie.....	Feb. 1962	Landing extension. In progress.
Cap de la Madeleine (Ste Marthe).....	Feb. 1962	Construction of retaining wall. In progress.
Carleton.....	Sept. 1961	Wharf repairs. Completed.
Champlain.....	April 1961	Rubber dock fender installation. Completed.
Champlain.....	April 1961	Retaining wall. In progress.
Champlain.....	Feb. 1962	Construction of retaining wall. In progress.
Contrecoeur.....	Feb. 1962	Construction of retaining walls. Three projects. In progress.
Deschailons.....	June 1961	Construction of stone embankment. Completed.
Dredging Plant.....	May 1961	Construction of Dredge DPW 125. Completed.
Etang des Caps.....	Aug. 1961	Fishing harbour. In progress.
Farnham.....	July 1961	Construction of retaining wall. Completed.
Forestville.....	Mar. 1961	Repairs to wharf and approach. Completed.
Gaspe (Sandy Beach).....	Aug. 1961	Wharf improvements. Completed.
Grande Riviere.....	May 1961	Dredging entrance channel and basin. Completed.
Grande Vallee.....	Nov. 1961	Dredging entrance channel to fishing harbour. In progress.
Grande Vallee.....	Dec. 1962	Harbour improvements. In progress.
Havre Aubert.....	June 1961	Dredging a channel. In progress.
Havre St. Pierre.....	July 1961	Enlarging concrete pavement on wharf. Completed.
La Tabatière.....	Aug. 1961	Construction of an extension to the wharf. Completed.
Lauzon.....	Oct. 1961	Reconstruction of machine shop at Champlain Dry Dock. Completed.
Lauzon.....	April 1961	Installation of fenders at Champlain Dry Dock. Completed.
Lauzon.....	April 1961	Installation of electrical capstans at Lorne Dry Dock. Completed.
Lauzon.....	Nov. 1961	Asphalt pavement at Lorne Dry Dock. Completed.
Magog.....	July 1961	Repairs to retaining wall. Completed.
Marsoul.....	May 1961	Wharf reconstruction. Completed.
Matane.....	April 1961	Dredging basin and entrance channel. Completed.
Matane.....	May 1961	Retaining wall. Completed.
Matane.....	July 1961	Harbour improvements (Ferry Terminal). In progress.
Mont-Louis.....	Oct. 1961	Wharf repairs. Completed.
Natashquan.....	Sept. 1960	Wharf repairs and construction of an enlargement. Completed.
Newport Point.....	Feb. 1961	Construction of stone rip-rap wall. Completed.
Newport Point.....	Aug. 1961	Harbour improvements. Completed.
Notre Dame du Nord.....	Jan. 1962	Protection works. In progress.
Pointe au Loup.....	Aug. 1961	Breakwater improvements. Completed.
Pointe-au-Père.....	Aug. 1959	Construction of winter port to provide year-round service between the North and South shores of the St. Lawrence. Completed.
Pointe-au-Pic.....	Sept. 1960	Repairs to wharf. Completed.
Pointe-au-Pic.....	Dec. 1961	Installation of railway siding on the wharf. Completed.
Portneuf.....	July 1961	Construction of stone masonry retaining wall. Completed.
Rimouski.....	April 1961	Dredging channel and berthing area. Completed.
Rivière au Renard.....	July 1961	Repairs to protection work. Completed.
Rivière-au-Tonnerre.....	July 1961	Dredging near main wharf and in channel leading to landing pier. In progress.
Rivière-du-Loup.....	Oct. 1961	Repairs to concrete walls of wharf. Completed.
Romaine.....	July 1961	Construction of a wharf. Completed.
Ste-Anne-de-Beaupré.....	Sept. 1961	Repairs to wharf. Completed.
Ste-Anne des Monts.....	Nov. 1961	Protection works. Completed.
St-Augustin.....	Oct. 1961	Construction of concrete retaining wall. Completed.
St-Augustin (Plage St. Laurent).....	Sept. 1961	Construction of concrete retaining walls. Completed.
St. Charles sur Richelieu.....	July 1961	Construction of retaining wall. Completed.
Ste-Croix.....	June 1961	Construction of concrete retaining wall. Completed.
St. Denis sur Richelieu.....	July 1961	Construction of retaining wall. Completed.
St. Donat.....	Aug. 1961	Construction of wharf. Completed.
St. Hilaire.....	Oct. 1961	Construction of retaining wall. Completed.
St. Irénée.....	June 1961	Repairs to concrete walls along wharf approach. Completed.
St. Jean, I.O.....	July 1961	Construction of concrete retaining wall. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>QUEBEC—Concluded</i>		
St. Joseph de Sorel.....	Oct. 1961	Construction of retaining wall. Completed.
St-Laurent, I.O.....	July 1961	Construction of concrete retaining wall. Completed.
St-Louis.....	June 1961	Construction of concrete retaining wall. Completed.
St-Romuald (New Liverpool)...	June 1961	Construction of concrete retaining wall. Completed.
Ste-Rose-du-Nord.....	Sept. 1960	Construction of wharf extension. Completed.
St-Siméon.....	Sept. 1961	Repairs to the wharf. Completed.
Sept-Iles.....	Feb. 1961	Construction of a stone mound and fill Pte-Aux-Basques wharf and Mgr. Blanche Street Wharf. Completed.
Sept-Iles.....	Dec. 1961	Replacing fender system on town wharf. Completed.
Sorel.....	May 1961	Dredging a yacht basin. Completed.
Tadoussac (Anse-a-l'Eau).....	Feb. 1961	Repairs to wharf and raising hoisting apparatus. Completed.
Tracy.....	Sept. 1961	Construction of retaining wall. Completed.
Verchères.....	Mar. 1962	Construction of retaining wall. In progress.
Yamachiche River.....	Aug. 1961	Dredging in Lake St. Peter and Yamachiche River to widen and deepen the channel. Completed.
Yamaska River.....	Oct. 1961	Dredging of four areas. Completed.
<i>ONTARIO</i>		
Amherstburg.....	April 1961	Construction of retaining wall. Completed.
Belle River.....	Aug. 1961	Reconstruction of training wall. In progress.
Belleville.....	Oct. 1960	Reconstruction of wharf. Completed.
Bracebridge.....	Sept. 1961	Reconstruction of protection wall on South side of river. Completed.
Burlington Channel.....	June 1961	Reconstruction of part of North pier. Completed.
Cataraqui Bay.....	Nov. 1960	Dredging approach and turning basin at Canadian Steamships Line Dock. Completed.
Cedar Point.....	Mar. 1961	Construction of rubble breakwater and concrete deck on wharf. Completed.
Chatham.....	June 1960	Reconstruction of retaining wall. Completed.
Cobourg.....	May 1961	Redredging entrance channel and around Centre Pier. Completed.
Collingwood.....	July 1961	Dredging enlarged turning basin. Completed.
Collingwood.....	Nov. 1961	Construction of four Mooring Stations at former C.N.R. wharf. In progress.
Cornwall.....	Aug. 1961	Harbour development. In progress.
Dredging Plant.....	April 1961	Construction and delivery of an eight inch Pipeline Dredge. In progress.
Fort William.....	May 1961	Dredging in the Westfort Turning Basin and Shoal Areas "D", "F" and "G", Lake Superior (Thunder Bay). Completed.
French River.....	Sept. 1962	Flow improvements were carried out at Dalles Falls by widening the rock channel. Completed.
Goderich.....	Sept. 1961	Reconstruction of Pier. Completed.
Hamilton.....	June 1960	Stage 3 of Burlington Beach Wharf completed April 30/61. Completed.
Hamilton.....	April 1961	Dredging approach to Wellington St. Wharf. Completed.
Hamilton.....	May 1961	Dredging approach to Terminal No. 3 from Stelco Ore Dock No. 2. Completed.
Hamilton.....	Aug. 1961	Pier extension to Wellington St. Wharf. Completed.
Hamilton.....	Oct. 1961	Final stage of Burlington Beach Wharf carried out, consisting of grading and paving. Completed.
Hamilton.....	July 1961	Consulting Services for Catharine St. Wharf Extension. Completed.
Innisfil Park.....	Mar. 1962	Reconstruction of timber wharf with steel sheet piling and concrete deck. In progress.
Kincardine.....	Jan. 1962	Repairs to wharf. In progress.
Kingsville.....	June 1961	Dredging in Harbour and Entrance Channel. Completed.
Lakehead.....	Jan. 1960	Harbour Terminal Construction—Structures, Services, and Finishes. Stage 5. In progress.
Lakehead.....	June 1960	Harbour Terminal Construction—Dredging, Reclamation and Wharf Construction. Stage 3. Completed.
Lakehead.....	Oct. 1960	Harbour Terminal Construction, installation of water mains to site. Stage 8. Completed.
Lakehead.....	Feb. 1961	Harbour Terminal Construction—Main Street Access Bridge. Stage 6. Completed.
Lakehead.....	Sept. 1961	Harbour Terminal Construction—Construction of Terminal Entrance Building. In progress.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>ONTARIO—Continued</i>		
Lakehead.....	Feb. 1962	Harbour Terminal Construction—Cargo Ramps, Vehicle Ramp and Travelling Hoist of Batteries. Stage 9. In progress.
Lakehead.....	Mar. 1962	Harbour Terminal Construction—Railway Tracks. Stage 7. In progress.
Leamington.....	Dec. 1961	Construction of Ferry Landing. In progress.
Little Current.....	Mar. 1961	Renewal of main wharf deck and reconstruction of marginal wharf. Completed.
Midland.....	Feb. 1961	Reconstruction of timber floats using steel pontoons and frames with timber decking. In progress.
Morrisburg.....	Nov. 1960	Construction of wharf. Completed.
North Bay.....	Jan. 1961	Reconstruction of approach superstructure, widening landing head, and repairs to freight shed. Completed.
North Bay.....	Oct. 1961	Construction of small boat facilities. In progress.
Oshawa.....	Mar. 1961	Diversion of creek away from new East Harbour Wharf. Completed.
Oshawa.....	May 1961	Redredging entrance channel and inner harbour areas. Completed.
Oshawa.....	Aug. 1961	Construction of steel pile bent and concrete decked wharf. In progress.
Owen Sound.....	Mar. 1961	Construction of retaining wall on East Harbour Wall North from 10th Street to improve street grades. Completed.
Owen Sound.....	Mar. 1961	Replacement of timber waling with steel waling. Stage 3. Completed.
Owen Sound.....	Feb. 1962	Reconstruction of West Entrance Pier with steel sheet piling. In progress.
Parry Sound.....	July 1961	Reconstruction of cribwork Smelter Wharf with steel sheet piling. Completed.
Pelee Island.....	Oct. 1961	Repairs to West Wharf. In progress.
Pictou.....	April 1961	Reconstruction of wharf. Completed.
Port Arthur.....	June 1960	Dredging in Main Entrance Channel and Main Harbour Centre. In progress.
Port Burwell.....	July 1961	Redredging of Areas in Outer and Inner Approach Channels. Completed.
Port Colborne.....	Oct. 1961	Repairs to East Breakwater. In progress.
Port Credit.....	Jan. 1961	Improvements and extension to main wharf, construction of a breakwater and dredging turning area at outer end of wharf. In progress.
Port Dover.....	Feb. 1961	Repairs to and reconstruction of two sections of West Pier. Completed.
Port Dover.....	Aug. 1961	Dredging of Inner Harbour and Entrance Channel. Completed.
Port Dover.....	Oct. 1961	Repairs to Pier. In progress.
Port Hope.....	May 1961	Redredging entrance channel and East and West Harbour slips. Completed.
Port Maitland.....	Mar. 1960	Repairs to Pier. Completed.
Port Maitland.....	Aug. 1959	Dredging of Inner Harbour and the T.H. & B. Coal Slip. Completed.
Port Rowan.....	Oct. 1960	Repairs to wharf. Completed.
Port Stanley.....	Mar. 1961	Driving Fender Pile Clusters. Completed.
Port Stanley.....	May 1961	Redredging in Approach Channel, Outer Harbour, Inner Harbour and Turning Basin. In progress.
Rockport.....	Feb. 1961	Construction of extension to wharf for Department of National Revenue. Completed.
Rondeau (Erieau).....	Feb. 1961	Repairs to East Pier. Completed.
Rondeau (Erieau).....	July 1961	Repairs to Breakwater. In progress.
Sault Ste. Marie.....	May 1961	Construction of floating fenders, reroofing freight shed and painting offices and rest rooms. Completed.
Sault Ste. Marie.....	Sept. 1961	Dredging high spots in river in front of city. Completed.
Toronto.....	May 1961	Dredging Area "H". In progress.
Toronto.....	July 1961	Dredging Ship Channel, Turning Basin and Eastern Entrance. Completed.
Toronto.....	Aug. 1961	Supervision and Inspection of Ship Channel Extension contract by Consultants. In progress.
Toronto.....	Sept. 1961	Extension to Ship Channel wharfage facilities. In progress.
Wallaceburg.....	Aug. 1960	Construction of Wharf with Transit Shed and Dredging of Turning Basin. Completed.
Walpole Island.....	July 1960	Construction of Two (2) Breakwaters and Dredging. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date work began	Description
<i>ONTARIO—Concluded</i>		
Waubauskene.....	May 1961	Improvement of narrow turn in channel by dredging. Completed.
Wheatley.....	Oct. 1961	Reconstruction of West Training Wall. In progress.
Wheatley.....	Dec. 1961	Reconstruction of Wall in Surge Basin. In progress.
Whitby.....	April 1961	Redredging entrance channel and harbour. Completed.
Wiarion.....	April 1961	Reconstruction of wharf. Completed.
Wolfe Island Cut.....	Mar. 1961	Dredging at the easterly end of Wolfe Island. In progress.
<i>MANITOBA</i>		
Dredging Plant.....	Mar. 1962	Repairs to Hull and Deck of Dredge No. 201. In progress.
Gimli.....	Oct. 1961	Construction of breakwater. Completed.
Selkirk.....	Nov. 1961	Wharf repairs. In progress.
The Pas.....	Nov. 1959	Construction of "L"-shaped extension to wharf and a rock filled approach. Completed.
Fort Prince of Wales (Churchill)	Sept. 1960	Excavation of Channel for Department of Northern Affairs and National Resources. Completed.
<i>ALBERTA</i>		
Arctic Red River, NWT.....	Dec. 1961	Installation of Floating Gangplank. In progress.
Fort Chipewyan, Alberta.....	Aug. 1961	Wharf reconstruction. Completed.
Fort Good Hope, NWT.....	Dec. 1961	Installation of floating wharf. In progress.
Fort Norman, NWT.....	Dec. 1961	Installation of floating wharf. In progress.
Fort Providence, NWT.....	July 1961	Construction of rock-filled crib wharf. Completed.
Fort Resolution, NWT.....	Oct. 1961	Wharf reconstruction. In progress.
Mackenzie River, NWT.....	July 1961	Construction of new survey vessel—"Hugh A. Young". Completed.
Reindeer Station, NWT.....	Dec. 1961	Installation of floating gangplank. In progress.
Wrigley Airport, NWT.....	Dec. 1961	Installation of floating gangplank. In progress.
<i>BRITISH COLUMBIA</i>		
Bella Bella.....	July 1961	Harbour improvements. Completed.
Campbell River.....	Feb. 1961	Construction of extension to breakwater. Completed.
Church House.....	Nov. 1961	Wharf replacement. Completed.
Courtenay River.....	April 1961	Dredging. Completed.
Dredging Plant.....	Dec. 1959	Construction of hopper dredge Fort Langley. Completed.
Dredging Plant.....	Feb. 1961	Construction of Survey Launch. Completed.
Dredging Plant.....	Feb. 1961	Construction of dump scow. Completed.
Dredging Plant.....	May 1961	Construction of fibreglass service launch. Completed.
Dredging Plant.....	June 1961	Annual Overhaul to Dredge 322. Completed.
Esquimalt (Oil wharf).....	Sept. 1961	Deck renewal. Completed.
Fort Babine.....	Nov. 1961	Wharf construction. Completed.
Fraser River (Channels 1, 2 and 3).....	July 1961	Dredging in Fraser River at Steveston and New Westminster. Completed.
Fraser River (Model).....	1961-1962	Model operation and adaptation. Completed.
Fraser River (Nicomen Slough).....	Mar. 1961	Dredging a towing channel. Completed.
Fraser River (North Arm).....	Jan. 1962	Repairs to Jetty. Completed.
Fraser River (Sumas to Hope).....	April 1961	Maintenance dredging to remove gravel bars in river. Completed.
Gibsons Landing.....	Mar. 1961	Wharf repairs and lighting system. Completed.
Haysport.....	Oct. 1961	Approach reconstruction. Completed.
Ladysmith.....	June 1961	Breakwater construction. Completed.
Mayne Island.....	April 1961	Wharf repairs. Completed.
Nanaimo Assembly Wharf.....	Mar. 1961	Reconstruction of No. 1 berth. Completed.
Nanaimo (Biological Station).....	Feb. 1960	Construction of electrical distribution system for Department of Fisheries. Completed.
Naramata.....	May 1961	Breakwater construction. Completed.
New Westminster (Fisheries Station).....	Feb. 1961	Construction of retaining wall for Department of Fisheries. Completed.
Okeover Arm.....	May 1961	Breakwater construction. Completed.
Port Alberni.....	May 1961	Approach channel dredging. Completed.
Port Alberni Assembly Wharf.....	Mar. 1960	Wharf reconstruction. Completed.
Port Simpson.....	Mar. 1962	Float construction. In progress.
Redonda Bay.....	May 1961	Harbour improvements. Completed.
Squamish.....	Feb. 1961	Dredging of Old Manquan River Channel. Completed.
Squamish.....	Jan. 1962	Dredging a towing channel. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Concluded

Location	Date work began	Description
BRITISH COLUMBIA—Concluded		
Tahsis.....	Feb. 1962	Breakwater for seaplane landing. In progress.
Union Bay.....	April 1961	Approach and float renewal. Completed.
Vancouver (Immigration Wharf)	Aug. 1961	Wharf reconstruction. Completed.
Vancouver (Stanley Park).....	1961-1962	Continuation of sea wall. Completed.
Westview.....	April 1961	Construction of floats in boat harbour. Completed.

DREDGING BY DEPARTMENTAL DREDGES, 1961-62

<i>Dredge No.</i>	<i>Location</i>	<i>Total Cubic Yards</i>
NEWFOUNDLAND		
22	Twillingate, Fortune.....	48,403
400	St. Johns, Cobb's Arm, Wesleyville, St. Josephs (Salmonier), Garnish, Terrenceville, St. Bernards, Botwood, Porter- ville, Bell Island C.B., Fortune, Jersey Harbour, Hermitage, Harbour Breton.....	20,091
PRINCE EDWARD ISLAND		
Pownal No. 2	Alberton, Beach Point, Lameque N.B., Souris, Wood Islands.....	31,300
10	Panmure Island, French Creek, Georgetown, Charlottetown	43,957
12	Darnley Basin, Savage Harbour, Murray Harbour.....	103,577
20	Caribou N.S., Wood Islands, Alberton.....	29,800
25	Annandale, Judes Point, North Rustico Launching.....	16,116
NOVA SCOTIA		
15	Martins River, Chester, Little Harbour (Lower Cherry Hill) Lower Wedgeport, Goose Bay, Little River Harbour, Porters Cove.....	11,705
16	Meteghan, Little River Harbour, Pinkney's Point, Abbot's Harbour, Shag Harbour.....	9,030
18	Little Harbour (L'Ardoise), Judique (Baxter's), Murphy's Pond, Port Hood, Port Hood Island, Little Judique Harbour, Boutin's Cove.....	11,700
19	Eastern Passage, Graff Beach (East Chezzetcook) West Jeddore.....	14,275
21	Yarmouth, Lunenburg.....	216,320
Dragline	Meteghan River.....	8,000
NEW BRUNSWICK		
23	Caraquet, Green Point, McEachern's Point, St. Marie-sur- Mer, Stonehaven, Tabusintac.....	34,280
24	Cape Tormentine, Chockfish, Harshman's Brook, Little Cape, Richibucto Cape, St. Edward.....	51,190
QUEBEC		
128	Barachois, Paspebiac, Ruisseau Chapados, Ruisseau Le Blanc, Port Daniel, Newport, Grand River, L'Anse a Beaufils.....	39,200
129	Gros Cap, Dune du Sud, Cap aux Meules, Entry Island, Grosse Isle Havre Aubert.....	51,930
130	Champlain Drydock, Lorne Drydock, Riviere du Loup, Tadoussac, Les Escoumains, Forestville, Pointe au Pie, Isle aux Coudres, Isle aux Grues, St. Francois.....	165,195
Mobile Crane	Anse au Griffon, Anse a Valteau, Little River, Anse au Beaufils, St. Joachim, Marsoui, Petite Vallee, Clori- dorme, Petite Riviere au Renard, Riviere au Renard, Cap des Rosiers.....	19,315

ONTARIO

116	Port Burwell, Port Stanley.....	109,796
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MANITOBA

201	Red River Mouth.....	41,716
205	George's Island, Hecla, Little Tamarack Island, Rabbit Point, Red River Mouth, St. Andrews Lock & Dam, Selkirk Slough.....	29,190
210	Curve Bay, Salt Point (East), Shoal River, South Spruce Island, Winnipegosis.....	21,281

ALBERTA

250	McInnes Fish Co., Athabaska River Athabaska River Delta	173,140
251	Fort Providence, Mackenzie River.....	16,090
252	Athabaska River.....	81,839
253	Hay River, Fort Resolution, Bell Rock.....	47,839
324	Tuktoyaktuk, Oniak Channel, Aklavik.....	59,128

BRITISH COLUMBIA

303	Steveston, New Westminster.....	229,888
311	Burton, Needles, Arrow Park, Nakusp.....	23,837
312	Steveston, New Westminster.....	544,624
322	Ladner, Steveston, New Westminster, Frazer River North Arm.....	1,375,718

BRIDGES

Maintenance and repairs were carried out during the year to the following bridges on behalf of the Development Engineering Branch:

Berthierville Bridge, P.Q.; Calumet-Bryson, P.Q.; Chapeau Bridge, P.Q.; Notre Dame du Nord Bridge, P.Q.; Papineauville Bridge, P.Q.; DesJoachim's Interprovincial Bridge, Ont. and P.Q.; Ottawa City Bridges, Ont. and P.Q.; Perley Bridge (Interprovincial), Ont. and P.Q.; Pembroke-Allumette Island Interprovincial Bridge, Ont. and P.Q.; Portage du Fort Interprovincial Bridge, Ont. and P.Q.; Burlington Channel, Ont.; Kingston La Salle Causeway, Ont.; Shellmouth, Man.; New Westminster Railway Bridge, B.C.

DAMS

The following dams were in operation during the year:

Fryer's Island Dam; French River Dam System, consisting of Big Chaudiere, Little Chaudiere, New Portage Dams; Latchford Dam; Temiskaming Dams; St. Andrew's Lock and Dam; Quinze Dam.

DRY DOCKS

The Champlain Dry Dock was occupied for 825 boat-days by 53 ships for a total tonnage of 307,507 tons.

The Lorne Dry Dock was occupied for 692 boat-days by 18 ships for a total tonnage of 59,827 tons.

The Kingston Dry Dock was occupied for 246 days by 26 vessels of a total tonnage of 36,839 tons.

The Selkirk Marine Repair Slip was occupied for 205 boat-days by 33 ships of a tonnage of 47,059 tons.

Esquimalt Dry Dock, Esquimalt, B.C.—42 vessels were docked for repairs, cleaning and painting; the total tonnage being 309,181 tons. The dock was occupied 178 days including Sundays and holidays. 137 vessels were moored at the landing wharf and jetty; the total number of days of occupancy being 688 days and the total tonnage 435,290 tons.

STATEMENT OF FERRY LICENCES IN FORCE DURING
THE FISCAL YEAR ENDING MARCH 31, 1962

Alfred, Ont.—Montebello, Que.....	\$ 15.00
Clarence, Ont.—Thurso, Que.....	20.00
Courtright, Ont.—St. Clair, Mich.....	25.00
Cumberland, Ont.—Masson, Que.....	10.00
Kingsville, Leamington, Pelee Island, Ont.—Sandusky, Ohio.....	25.00
*Lefavre, Ont.—Fassett, Que.....	30.00
Niagara-on-the-Lake, Ont.—Youngstown, N.Y.....	25.00
Niagara Falls, Ont.—Niagara Falls, N.Y.....	25.00
Port Lambton, Ont.—Roberts Landing, Mich.....	25.00
Quyon, Que.—Moore Landing, Ont.....	125.00
Rockliffe, Ont.—Gatineau Point, Que.....	25.00
St. Andrews, N.B.—Robbinston, Maine.....	15.00
Sault Ste. Marie, Ont.—Sault Ste. Marie, Mich.....	100.00
Sombra, Ont.—Marine City, Mich.....	1.00
Stag Island, Ont.—Marysville, Mich.....	25.00
Walpole Island, Ont.—Algonac, Mich.....	25.00

*Licence cancelled on July 24, 1961, due to operation of ferry from points other than stipulated in the Ferry Licence Regulations.

BUILDING CONSTRUCTION BRANCH

E. A. Gardner, Chief Architect

Location	Date contract awarded	Details
NEWFOUNDLAND		
Channel (Port aux Basques).....	June 1961	New Post Office Building. In progress.
Dark Cove.....	July 1961	New Federal Building to accommodate the Departments of Post Office and Fisheries. In progress.
Gambo.....	Oct. 1961	New Mail Storage Shed. Completed March 1962.
St. John's.....	May 1961	New Veterans' Wing Pavilion to accommodate the Department of Veterans Affairs. In progress.
PRINCE EDWARD ISLAND		
Alberton.....	Sept. 1961	New Federal Building to accommodate the Department of Fisheries, Agriculture and Post Office. In progress.
Charlottetown.....	Jan. 1962	Improvements to Ventilation, R.C.M.P. Rifle Range. In progress.
Ellerslie.....	May 1961	New Laboratory Building to accommodate the Fisheries Research Board. Completed October 1961.
NOVA SCOTIA		
Dartmouth.....	May 1961	New Laboratory Fittings in the Oceanographic and Hydrographic Laboratory for the Department of Mines and Technical Surveys. In progress.
Digby.....	Sept. 1961	New R.C.M.P. Detachment Quarters. In progress.
Halifax.....	April 1961	New Storage Building for the Department of Fisheries. Completed October 1961.
Halifax.....	June 1961	New Building to accommodate the Queen's Printer. In progress.
Halifax.....	Nov. 1961	For supply and installation of Mail Handling Equipment in the Post Office Building. In progress.
Kentville.....	Sept. 1961	New Federal Building to accommodate the Departments of National Revenue (Customs) Citizenship and Immigration, Agriculture, Veterans Affairs, Fisheries, Post Office and Unemployment Insurance Commission. In progress.
Lawrencetown.....	Dec. 1961	New Post Office Building. In progress.
North Sidney.....	Dec. 1961	Addition and major improvements to existing Post Office Building. In progress.
Reserve Mines.....	Feb. 1962	New Post Office Building. In progress.
River Hebert.....	Jan. 1962	New Post Office Building. In progress.
NEW BRUNSWICK		
Centreville.....	Nov. 1961	New Post Office Building. In progress.
Florenceville.....	May 1961	New Federal Building to accommodate the Departments of Agriculture and Post Office. In progress.
Fredericton.....	Jan. 1962	Supply and installation of sprinkler system in R.C.M.P. Building. In progress.
Plaster Rock.....	Feb. 1962	New R.C.M.P. Detachment Quarters. In progress.
St. George.....	Nov. 1961	New R.C.M.P. Detachment Quarters. In progress.
West Saint John.....	Nov. 1961	Major alterations and repairs to Customs and Immigration Building. In progress.
QUEBEC		
Beauharnois.....	June 1961	New Post Office Building. Completed March 1962.
Blackpool (Lacolle).....	Aug. 1961	Supply and installation of sewage disposal and water supply systems for the Customs and Immigration Building. In progress.
Blackpool (Lacolle).....	Jan. 1962	Major repairs and improvements to Customs and Immigration Building. In progress.
Blackpool (Lacolle).....	Jan. 1962	New Public toilets for the Customs and Immigration Building. In progress.
Desbiens.....	Dec. 1961	New Post Office Building. Completed March 1962.
Fort Chimo.....	June 1961	New Nursing Station Building for the Department of National Health and Welfare. Completed November 1961.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>QUEBEC—Concluded</i>		
Frelighsburg.....	Jan. 1962	New Post Office Building. In progress.
Great Whale.....	Aug. 1961	New Nursing Station Building for the Department of National Health and Welfare. Completed March 1962.
La Tuque.....	Sept. 1961	New Indian Residential School for the Department of Citizenship and Immigration. In progress.
Langevin.....	Jan. 1962	New Post Office Building. In progress.
Montreal.....	May 1961	Major alterations and improvements to the 7th and 8th floors of the Customs Building. Completed March 1962.
Montreal.....	May 1961	Extension and improvements to the Central Heating Plant, Queen Mary Veterans' Hospital for the Department of Veterans Affairs. In progress.
Marieville.....	Nov. 1961	New Addition and major improvements to the Post Office Building. In progress.
Matapedia.....	Dec. 1961	New Post Office Building. In progress.
Megantic.....	Jan. 1962	New R.C.M.P. Detachment Quarters. In progress.
Metabetchewan.....	Mar. 1962	New Post Office Building. In progress.
Obedjiwan.....	Nov. 1961	New 4-Classroom School and one 6-Bedroom Residence for the Department of Citizenship and Immigration. In progress.
Paint Hills.....	May 1961	New Nursing and Powerhouse Buildings for the Department of National Health and Welfare. Completed December 1961.
Quebec.....	June 1961	Major repairs and improvements to the Customs Building. Completed October 1961.
Quyon.....	Dec. 1961	New Post Office Building. In progress.
Riviere au Renard.....	April 1961	New Post Office Building. Completed October 1961.
Rock Island.....	Jan. 1962	New Building to accommodate the Department of National Revenue (Customs). In progress.
Rimouski.....	Jan. 1962	New R.C.M.P. Detachment Quarters. In progress.
Riviere du Loup.....	Feb. 1962	New R.C.M.P. Detachment Quarters. In progress.
Schefferville.....	Sept. 1961	New Seismograph Vault for the Department of Mines and Technical Surveys. In progress.
Seven Islands.....	Mar. 1962	Additional Classrooms and Bedrooms to School to accommodate the Department of Citizenship and Immigration. In progress.
St. Raphael.....	Oct. 1961	New Post Office Building. Completed March 1962.
St. Prosper.....	Oct. 1961	New Post Office Building. Completed March 1962.
St. Hyacinthe.....	Jan. 1962	New Federal Building to accommodate the Departments of Post Office, Agriculture, Veterans Affairs and Unemployment Insurance Commission. In progress.
St. Sauveur.....	Jan. 1962	New Post Office Building. In progress.
Val David.....	Jan. 1962	New Post Office Building. In progress.
Verdun.....	Jan. 1962	New Federal Building to accommodate the Unemployment Insurance Commission. In progress.
Weedon.....	Jan. 1962	New Post Office Building. In progress.
<i>ONTARIO</i>		
OTTAWA—Booth St.....	Aug. 1961	Site Development including paving of certain Streets and Sidewalks. Completed March 1962.
Confederation Heights.....	Mar. 1962	Two new Bus Shelters to accommodate Government Employees stationed at Confederation Heights. In progress.
Plouffe Park.....	June 1961	New Office Building to accommodate the Ottawa District employees of the Department of Public Works. Completed March 1962.
City.....	June 1961	New Building to accommodate the Unemployment Insurance Commission. In progress.
City.....	Oct. 1961	Extensive interior improvements to the Victoria Museum Building. In progress.
City.....	Oct. 1961	Improvements to Justice Building including pointing of stone work. Completed March 1962.
City.....	Jan. 1962	Extensive improvements to Kaladar Building to accommodate the Department of Trade and Commerce. In progress.
City.....	Feb. 1962	Extensive alterations to the Militia Stores Building. In progress.
City.....	Mar. 1962	Minor alterations and repairs to the Daly Building. In progress.
Central Experimental Farm...	May 1961	New Headerhouse and Ancillary Service Building to accommodate the Department of Agriculture. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>ONTARIO—Continued</i>		
Central Experimental Farm...	Nov. 1961	New Seismograph Vault for the Department of Mines and Technical Surveys. In progress.
Central Experimental Farm...	Dec. 1961	Extensive alterations and improvements to the Neatby Building for the Department of Agriculture. In progress.
Central Experimental Farm...	Jan. 1962	Extensive alterations to the Geodetic Surveys Building. In progress.
Parliament Buildings.....	April 1961	Additions and extensive alterations and improvements to the West Block Building. In progress.
Parliament Buildings.....	July 1961	Improvements and repairs to the East Block Building. Completed February 1962.
Parliament Buildings.....	Jan. 1962	Replace certain windows in Center Block Building. In progress.
Parliament Buildings.....	Mar. 1962	Installation of an emergency power system in the Centre Block Building. In progress.
Tunney's Pasture.....	Aug. 1961	New Building to accommodate the Department of Finance (Income Tax). In progress.
Tunney's Pasture.....	June 1961	New Administration Building to accommodate the Department of National Health and Welfare. In progress.
Tunney's Pasture.....	Oct. 1961	New additions and improvements to the Central Heating Plant. In progress.
Tunney's Pasture.....	Dec. 1961	Extensive alterations to Finance Building (Computer Centre) for the Department of Finance. In progress.
Arnprior.....	Sept. 1961	Improvements to Civil Defence College Buildings for the Department of National Health and Welfare. Completed February 1961.
Arnprior.....	Oct. 1961	New Prototype Family Shelters for Emergency Military Operations. In progress.
Azilda.....	Jan. 1962	New Post Office Building. In progress.
Acton.....	Mar. 1962	New Public Building to accommodate the Departments of National Revenue (Customs) and Post Office. In progress.
Barrie.....	Aug. 1961	New retaining wall and fence at existing Public Building. In progress.
Bolton.....	Feb. 1962	New Post Office Building. In progress.
Cannington.....	May 1961	New addition and improvements to existing Post Office Building. Completed December 1961.
Carleton Place.....	June 1961	New Welfare Service Accommodation Centre for the Emergency Military Operations. In progress.
Carleton East.....	Jan. 1962	New Post Office Building. In progress.
Delaware.....	Jan. 1962	New Post Office Building. In progress.
Dublin.....	Jan. 1962	New Post Office Building. In progress.
Drumbo.....	Jan. 1962	New Post Office Building. In progress.
Drayton.....	Mar. 1962	New Post Office Building. In progress.
Etobicoke.....	Dec. 1962	New Post Office Building. In progress.
Fort Albany.....	May 1961	New Health Centre Building to accommodate the Department of National Health and Welfare. Completed November 1961.
Fort Erie.....	July 1961	Minor alterations to existing Public Building. Completed November 1961.
Fort Erie.....	Feb. 1962	New Post Office Building. In progress.
Fort Francis.....	Feb. 1962	New R.C.M.P. Detachment Quarters. In progress.
Flesherton.....	Mar. 1962	New Post Office Building. In progress.
Hamilton.....	May 1961	New addition and alterations to Postal Terminal "A". In progress.
Hamilton.....	Jan. 1962	Supply and installation of a mail handling conveyor equipment in Postal Terminal "A". In progress.
Kemptville.....	July 1961	New Welfare Accommodation Centre for the Emergency Military Operations. In progress.
London.....	June 1961	Supply and installation of a mail handling equipment in the Postal Terminal Building. In progress.
Longlac.....	Mar. 1962	New Post Office Building. In progress.
Moose Factory.....	May 1961	New Post Office Building. Completed November 1961.
North Bay.....	Feb. 1962	Extension repairs to existing Public Building. In progress.
Norwood.....	Mar. 1962	New Post Office Building. In progress.
Ohsweken.....	Mar. 1962	New School and Gymnasium Buildings for the Department of Citizenship and Immigration. In progress.
Plattsville.....	Jan. 1962	New Post Office Building. In progress.
Pakenham.....	Mar. 1962	New Post Office Building. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>ONTARIO—Concluded</i>		
Sioux Lookout.....	Aug. 1961	New Gymnasium Building at the Indian Residential School for the Department of Citizenship and Immigration. In progress.
Scarborough.....	Dec. 1961	New Seismograph Vault for the Department of Mines and Technical Surveys. In progress.
Sandy Lake.....	Feb. 1962	Two Schools two Residences and one Power House Building to accommodate the Department of Citizenship and Immigration. In progress.
Toronto.....	May 1961	Addition and alterations to existing Postal Station "N" Building. In progress.
Toronto.....	Jan. 1962	Alterations to R.C.M.P. Quarters—3 Sullivan Street. In progress.
Toronto.....	Feb. 1962	Supply and installation of movable partitions in the Arthur Meighen's Building. In progress.
<i>MANITOBA</i>		
Carberry.....	July 1961	New R.C.M.P. Detachment Quarters. In progress.
Cross Lake.....	July 1961	New two Classroom School one Staff Residence and Power-house Building to accommodate the Department of Citizenship and Immigration. In progress.
Dauphin.....	June 1961	New Dormitory Building and Addition to existing Laundry Building to accommodate the Department of Citizenship and Immigration. In progress.
Eriksdale.....	Dec. 1961	New Post Office Building. In progress.
Ethelbert.....	Mar. 1962	New Post Office Building. In progress.
Guy, (The Pas Agency).....	June 1961	New Two Bedroom Staff Residences to accommodate the Department of Citizenship and Immigration. In progress.
Gimli.....	Sept. 1961	New R.C.M.P. Detachment Quarters. In progress.
Jack River.....	Sept. 1961	New Four classroom School for the Department of Citizenship and Immigration. In progress.
McCreary.....	Dec. 1961	New Post Office Building. In progress.
Oxford House.....	Feb. 1962	New School and Staff Residence for the Department of Citizenship and Immigration. In progress.
Playgreen.....	April 1961	New addition including alterations to Indian Day School and Teacherage Buildings for the Department of Citizenship and Immigration. In progress.
Plum Coulee.....	Dec. 1961	New Post Office Building. In progress.
Riverton.....	Dec. 1961	New Post Office Building. In progress.
Sandy Bay.....	Oct. 1961	New eight classroom School for the Department of Citizenship and Immigration. In progress.
St. Claude.....	Dec. 1961	New Post Office Building. In progress.
Wawanesa.....	Dec. 1961	New Post Office Building. In progress.
Winnipeg Beach.....	Mar. 1961	New Post Office Building. In progress.
<i>SASKATCHEWAN</i>		
Blaine Lake.....	Nov. 1961	New Post Office Building. In progress.
Beauval.....	Nov. 1961	New Six Classroom School for the Department of Citizenship and Immigration. In progress.
Big Beaver.....	Jan. 1962	New Staff Residence to accommodate the Department of National Revenue. In progress.
Cabri.....	Oct. 1961	New Post Office Building. In progress.
Carlisle.....	Oct. 1961	New Federal Building to accommodate the Department of Agriculture, Public Works, Veterans Affairs, Citizenship and Immigration and Post Office. In progress.
Choiceland.....	Nov. 1961	New Post Office Building. Completed March 1962.
Churchbridge.....	Mar. 1962	New Post Office Building. In progress.
Delisle.....	Nov. 1961	New Post Office Building. In progress.
Duck Lake.....	Nov. 1961	New Six Classroom School including a Gymnasium and Staff Residence for the Department of Citizenship and Immigration. In progress.
Duck Lake.....	Mar. 1962	New Federal Building to accommodate the Departments of Citizenship and Immigration (Including Historical Museum Section) and Post Office. In progress.
Fort Qu'Appelle.....	April 1961	New Female Staff Residence on existing Hospital site to accommodate the Department of Veterans Affairs. In progress.
Hodgeville.....	Mar. 1962	New Post Office Building. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>SASKATCHEWAN—Concluded</i>		
Indian Head.....	Sept. 1961	New R.C.M.P. Detachment Quarters. In progress.
Jansen.....	Nov. 1961	New Post Office Building. In progress.
Kerrobot.....	June 1961	New Post Office Building. In progress.
Kyle.....	Dec. 1961	New Post Office Building. In progress.
Leader.....	Jan. 1962	New R.C.M.P. Detachment Quarters. In progress.
Mellville.....	Sept. 1961	New R.C.M.P. Detachment Quarters. In progress.
Mossbank.....	Dec. 1961	New Post Office Building. In progress.
Morse.....	Jan. 1962	New R.C.M.P. Detachment Quarters. In progress.
North Battleford.....	Oct. 1961	New Administration and Garage Buildings to accommodate the R.C.M.P. In progress.
North Portal.....	Mar. 1962	New Customs Examining Warehouse Building to accommodate the Department of National Revenue (Customs). In progress.
North Portal.....	Nov. 1961	New Quarantine Station Building for the Department of Agriculture. In progress.
Naicam.....	Dec. 1961	New Post Office Building. In progress.
Norquay.....	Dec. 1961	New Post Office Building. In progress.
Nipawin.....	Jan. 1962	New addition to Federal Building to provide accommodation for the Departments of Agriculture, Veterans Affairs and Post Office. In progress.
Regina.....	June 1961	Extensive improvements to the existing mail sorting equipment in the Post Office Building. In progress.
Regina.....	Nov. 1961	Replacement of fuel oil tanks at the R.C.M.P. Depot. In progress.
Radisson.....	Dec. 1961	New Post Office Building. In progress.
Southey.....	Dec. 1961	New Post Office Building. In progress.
Theodore.....	Nov. 1961	New Post Office Building. In progress.
Watrous.....	Jan. 1962	New R.C.M.P. Detachment Quarters. In progress.
<i>ALBERTA</i>		
Brocket.....	June 1961	New Six Classroom School, Triplex and Pump House for the Department of Citizenship and Immigration. In progress.
Breton.....	Jan. 1962	New Post Office Building. In progress.
Barons.....	Jan. 1962	New Post Office Building. In progress.
Calgary.....	April 1961	Improvements on 4th Floor of Customs Building. In progress.
Calgary.....	July 1961	Improvements on 3rd Floor of Customs Building. Completed November 1961.
Calgary.....	Dec. 1961	Extensive alterations and improvements in Old Federal Building. In progress.
Creston.....	Sept. 1961	New addition and alterations to the Federal Building to accommodate the Departments of Veterans Affairs and Post Office. In progress.
Cardston.....	Oct. 1961	New Gymnasium Building for the Department of Citizenship and Immigration. In progress.
Donalda.....	Dec. 1961	New Post Office Building. In progress.
Edmonton.....	April 1961	Improvements to the Dental Clinic Section of the Colonel Mewburn Hospital. Completed January 1962.
Edson.....	June 1961	New R.C.M.P. Detachment Quarters. In progress.
Elk Point.....	Jan. 1962	New Post Office Building. In progress.
Fort Chipewyan.....	July 1961	New Nursing Station Building for the Department of National Health and Welfare. In progress.
Grand Centre.....	Sept. 1961	New Post Office Building. In progress.
Hobbema.....	Sept. 1961	New extension to existing four classroom Indian School for the Department of Citizenship and Immigration. In progress.
Habay.....	Sept. 1961	Addition and improvements to existing Assumption School for the Department of Citizenship and Immigration. In progress.
Hines Creek.....	Jan. 1962	New Post Office Building. In progress.
Jasper.....	Nov. 1961	New R.C.M.P. Detachment Quarters. In progress.
Joussard.....	Jan. 1962	New two classroom School for the Department of Citizenship and Immigration. In progress.
Lacombe.....	June 1961	New Federal Building to accommodate the Department of Veterans Affairs (V.L.A.) and Post Office. In progress.
Magrath.....	Oct. 1961	New R.C.M.P. Detachment Quarters. In progress.
Nome Lake.....	Nov. 1961	New three classroom Indian School for the Department of Citizenship and Immigration. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>ALBERTA—Concluded</i>		
Onoway.....	Dec. 1961	New Post Office Building. In progress.
Ryley.....	Dec. 1961	New Post Office Building. Completed March 1962.
St. Albert.....	June 1961	New Post Office Building. Completed January 1962.
Two Hills.....	Sept. 1961	New Post Office Building. Completed March 1962.
Viking.....	Sept. 1961	New R.C.M.P. Detachment Quarters. Completed March 1962.
<i>BRITISH COLUMBIA</i>		
Clinton.....	Aug. 1961	New R.C.M.P. Detachment Quarters. In progress.
Clinton.....	Jan. 1962	New Post Office Building. In progress.
Chase.....	Jan. 1962	New R.C.M.P. Detachment Quarters. In progress.
Clearwater.....	Mar. 1962	New R.C.M.P. Detachment Quarters. In progress.
Fruitvale.....	Feb. 1962	New Post Office Building. In progress.
Harrison Hot Springs.....	Dec. 1961	New Post Office Building. In progress.
Kamloops.....	Feb. 1962	New Dormitory and Cafeteria Buildings for the Department of Citizenship and Immigration. In progress.
Lytton.....	May 1961	New R.C.M.P. Detachment Quarters. Completed October 1961.
Lumby.....	Oct. 1961	New R.C.M.P. Detachment Quarters. In progress.
Merritt.....	May 1961	New Addition including improvements to the Federal Building to provide accommodation for the Departments of Citizenship and Immigration, National Health and Welfare and Post Office. Completed January 1962.
Matsqui.....	Dec. 1961	New Post Office Building. In progress.
Midway.....	Dec. 1961	New Staff Residence for the Department of National Revenue (Customs). In progress.
New Westminster.....	July 1961	Extensive alterations to the existing Federal Building. Completed November 1961.
Nanaimo.....	Sept. 1961	New Technical Services Building at Biological Station for the Department of Fisheries. In progress.
Prince Rupert.....	Jan. 1962	New Federal Building to accommodate the Departments of National Revenue (Customs) Citizenship and Immigration (Indian Affairs) Transport Fisheries, Post Office and Unemployment Insurance Commission. In progress.
Prince Rupert.....	Feb. 1962	Replacement of Heating Boilers in the Indian Hospital for the Department of National Health and Welfare. In progress.
Port Hardy.....	Feb. 1962	New Seismograph Vault for the Department of Mines and Technical Surveys. In progress.
Rossland.....	Feb. 1962	Extensive alterations to the existing Federal Building. In progress.
Salmon Arm.....	April 1961	New addition and Alterations to existing Federal Building to accommodate the Departments of Veterans Affairs and Post Office. In progress.
Sidney.....	Aug. 1961	New Highway Office to accommodate the Departments of National Revenue, (Customs) and Citizenship and Immigration. In progress.
Seton Lake (Lytton Agency)....	Oct. 1961	New addition to existing one classroom School for the Department of Citizenship and Immigration. In progress.
Terrace.....	Dec. 1961	New Addition to existing Federal Building to accommodate the Post Office Department. In progress.
Vancouver.....	April 1961	Extensive alterations and improvements to existing Old Customs Examining Warehouse Building. Completed October 1961.
Vancouver.....	May 1961	New Building known as Postal Station "F" to accommodate the Post Office Department. In progress.
Vancouver.....	Jan. 1962	Installation of fire alarm system in the Technical Building (Fisheries). Completed March 1962.
Vancouver.....	Jan. 1962	New Federal Building to accommodate the Post Office Department and Unemployment Insurance Commission. In progress.
<i>YUKON AND NORTHWEST TERRITORIES</i>		
Fort Simpson.....	Sept. 1961	Seven new Residences, two Garages, one Operations Building and one Warehouse Building to accommodate the Departments of Citizenship and Immigration, National Health and Welfare, Northern Affairs and National Resources and Transport. In progress.

BUILDING CONSTRUCTION BRANCH—Concluded

Location	Date contract awarded	Details
YUKON AND NORTHWEST TERRITORIES— <i>Concluded</i>		
Fort Smith.....	Sept. 1961	New Single Staff Quarters Building for the Department of National Health and Welfare. In progress.
Hay River.....	July 1961	New R.C.M.P. Detachment Quarters. In progress.
Hay River.....	Sept. 1961	New Buildings known as Art Shop, Warehouse and Utility Rooms and Shed to accommodate the Department of Northern Affairs and National Resources. In progress.
Snag Creek.....	Oct. 1961	New Standard Residence for the Department of National Revenue. In progress.
Yellowknife.....	Mar. 1962	New Addition to existing 100 pupil Dormitory Building for the Department of Northern Affairs and National Resources. In progress.

DEVELOPMENT ENGINEERING BRANCH

G. T. Clarke, Chief Engineer

Location	Date contract awarded	Description
NEWFOUNDLAND		
Terra Nova National Park—Mile 0-10, Trans-Canada Highway.....	June 1959	Sub-Base Course, Base Course, Bituminous Stabilized Base Course and Guide Rail—Completed.
Terra Nova National Park—Mile 10-25, Trans-Canada Highway.....	June 1960	Sub-Base Course, Base Course, Bituminous Stabilized Base Course and Guide Rail—Completed.
Terra Nova National Park.....	July 1961	Sub-Base, Base Course, Paving of Access Roads to Parking Areas of Headquarters Areas—Completed.
PRINCE EDWARD ISLAND		
Prince Edward Island National Park—Rustico Harbour—New London Campgrounds.....	July 1958	Grading and paving—Completed.
NOVA SCOTIA		
Cape Breton Highlands National Park Mile 29.5-33.5, Cabot Trail.....	May 1960	Grading, culverts and paving—Completed.
Cape Breton Highlands National Park—Mile 15-21, and Mile 22.5-33.5, Cabot Trail.....	Aug 1960	Grading, culverts and stabilized base course—Completed.
Cape Breton Highlands National Park—Cabot Trail, Effies Brook—Neils Harbour	Aug 1961	Grading and paving—In progress.
NEW BRUNSWICK AND QUEBEC		
Campbellton, N.B.—Cross Point, Que.....	Dec 1958	Construction of substructure of Interprovincial Bridge—Completed.
Campbellton, N.B.—Cross Point, Que.....	April 1960	Construction of superstructure of Interprovincial Bridge—Completed.
Campbellton, N.B.—Cross Point, Que.....	Aug 1961	Paving approaches to Interprovincial Bridge—Completed.
Edmundston, N.B.....	May 1961	Repairs to International Bridge—Completed.
Grand Bay, N.B.....	Sept 1961	Access Road to Animal Quarantine Station—Completed.
ONTARIO		
Burlington.....	Oct. 1958	Substructure Lift Bridge over Burlington Ship Canal—In progress.
Burlington.....	Mar. 1958	Superstructure Lift Bridge over Burlington Ship Canal—In progress.
Ottawa.....	Nov. 1961	Improvements to drainage area of Black Rapids Creek, Dominion Experimental Farm—In progress.
Ottawa.....	Jan. 1962	Repairs to Canal Bridge—Chaudiere Crossing—Completed.
MANITOBA		
Churchill.....	Oct. 1960	Access Road, Intake Structure Water Supply Line—Completed.
Churchill.....	Dec. 1960	Water and sewage installation Eskimo Camp 20—Completed.
SASKATCHEWAN		
Indian Head.....	Oct. 1960	Sewage Disposal System—Completed.
Prince Albert National Park.....	June 1961	Halkett Lake Diversion of Waskesiu Highway, 1.8 miles, and Crean Lake from east end of Hearts Lake, 4.6 miles—In progress.
Regina.....	Dec. 1961	Replacements of water and fire mains systems, R.C.M.P. Barracks—In progress.

DEVELOPMENT ENGINEERING BRANCH—Continued

Location	Date contract awarded	Description
ALBERTA		
Banff Townsite.....	Aug. 1960	Reconstruction of Banff Avenue from Wolfe Street to Bow River—Completed.
Banff National Park—Banff-Jasper Highway, Mile 74-82.3.....	Oct. 1958	Grading, culverts, base course, prime and road mix—Completed.
Banff National Park—Banff-Jasper Highway, Mile 67.7-74.....	Aug. 1960	Culverts, grading, sub-base course, base course and Nigel Creek Bridge—In progress.
Jasper National Park—Banff-Jasper Highway, Mile 85.8-96.6.....	May 1959	Grading, culverts, base course and bituminous stabilized base course—Completed.
Jasper National Park—Banff-Jasper Highway, Mile 96.6-104.5.....	May 1960	Grading, culverts, base course and prime coat—Completed.
Jasper National Park—Banff-Jasper Highway, Mile 105.5-115.....	April 1961	Grading, culverts, base course, prime and double seal—In progress.
Jasper National Park—Banff-Jasper Highway, Mile 125-139.2.....	April 1961	Grading, culverts and granular base course—In progress.
Jasper National Park—Banff-Jasper Highway, Mile 139.5.....	Nov. 1961	Athabaska River Bridge—In progress.
Jasper National Park—Medicine Lake-Maligne Lake Road, Mile 0-5.5.....	June 1961	Grading, base course and equipment rental—In progress.
Jasper National Park—Jasper-Edmonton Highway, Mile 0-11.....	July 1961	Grading, culverts, base course and Snaring River Bridge—In progress.
Waterton Lakes National Park—Chief Mountain Highway, Mile 9-13.8.....	July 1961	Grading, culverts, base course and double seal coat—In progress.
Banff National Park—Trans-Canada Highway, Mile 14-32.....	May 1961	Paving—In progress.
Banff National Park—Trans-Canada Highway, Mile 32-51.1.....	June 1961	Paving—In progress.
Banff National Park.....	Jan. 1962	Construction of Banff-Windermere Interchange with Trans-Canada Highway—In progress.
Wood Buffalo Park.....	Oct. 1961	Clearing and grubbing, right-of-way, Pine Lake-Peace Point Development Road—Completed.
Wood Buffalo Park.....	Dec. 1961	Construction of Development Road, Pine Lake-Peace Point Development Road—In progress.
Banff National Park—Trans-Canada Highway.....	July 1961	Painting and repair of various bridges—In progress.
BRITISH COLUMBIA		
Glacier National Park—Trans-Canada Highway, Mile 12.4-18.7.....	Sept. 1958	Grading and culverts from Mile 12.4-18.7; construction of Reinforced Concrete Arch Culvert at Mile 16.6 and Loop Creek Bridge at Mile 18.4—Completed.
Glacier National Park—Trans-Canada Highway, Mile 11.01.....	July 1960	Construction of Snowsheds—Completed.
Glacier National Park—Trans-Canada Highway, Mile 0-7.....	June 1960	Place sub-base course Class III—Completed.
Glacier National Park—Trans-Canada Highway, Mile 6-9.7.....	July 1960	Grading and culverts—Completed.
Glacier National Park—Trans-Canada Highway, Mile 11.68 and Mile 10.78.....	April 1961	Construction of Snowsheds—In progress.
Glacier National Park—Trans-Canada Highway, Mile 7-17.....	May 1961	Sub-base course Class III—Completed.
Glacier National Park—Trans-Canada Highway, Mile 0-27.3.....	April 1961	Bituminous stabilized base course—In progress.
Glacier National Park—Trans-Canada Highway, Mile 10.99 and 11.28.....	Feb. 1962	Construction of Snowsheds—In progress.

DEVELOPMENT ENGINEERING BRANCH—Concluded

Location	Date contract awarded	Description
BRITISH COLUMBIA—Continued		
Kootenay National Park—Banff-Windermere Highway, Mile 1-18.....	June 1960	Bituminous stabilized base course—Completed.
Kootenay National Park—Banff-Windermere Highway, Mile 56.2-62.4.....	Feb. 1961	Grading, culverts base course, seal, production and stockpiling of concrete aggregate—In progress.
Revelstoke National Park—Trans-Canada Highway, Mile 0-7.9.....	Sept. 1960	Base course Class I and bituminous stabilized base course—Completed.
Yoho National Park—Emerald Lake Road, Mile 0-5.....	June 1960	Bituminous stabilized base course—Completed.
Yoho National Park—Trans-Canada Highway, Mile 0-16.....	June 1961	Final paving—Completed.
Yoho National Park—Trans-Canada Highway.....	July 1961	Paintwork and repairs to bridges—In progress.
Royal Oaks.....	Feb. 1960	Reconstruction of access road to Dominion Astrophysical Observatory—Completed.
YUKON TERRITORY		
Watson Lake-Ross River Road—Mile 34.8-68.2.....	April 1961	Construction of Development Road—In progress.
Ross River Southerly—Mile 0-50.....	July 1961	Construction of Development Road—In progress.
Flat Creek-Eagle Plain Road—Mile 0.2....	Aug. 1961	Klondike River Bridge and approaches—In progress.
Flat Creek-Eagle Plain Road—Mile 62-74	June 1961	Grading, culverts—Completed.
Flat Creek-Eagle Plain Road—Mile 0.2....	May 1961	Re-erect Bailey Bridge—Completed.
Stewart Crossing-Dawson Road—Mile 295	May 1961	McQuesten River Bridge—In progress.
Stewart Crossing-Dawson Road—Two miles east of Dawson City.....	May 1961	Ogilvie Bridge—In progress.
North easterly from Mile 65 of Watson Lake-Ross River Road, Mile 0-80.....	June 1961	Nahanni Range Road—In progress.
NORTHWEST TERRITORIES		
Frank Channel.....	May 1959	Construction of 4-span steel bridge over Frank Channel—Completed.
Great Slave Highway.....	Aug. 1960	Gravel lift from Fort Providence to Frank Channel—Completed.
Mackenzie River Crossing.....	Aug. 1960	Approaches, causeway and haul facilities for Mackenzie River Ferry—Completed.
Mackenzie River Crossing.....	Aug. 1960	Construction of Steel Ferry—Completed.
Mackenzie Highway.....	July 1960	Grading and culverts, Hay River-Enterprise—Completed.
Mackenzie Highway—Mile 51-76.....	Mar. 1961	Clearing right-of-way—Completed.
Mackenzie Highway—Mile 25-51.....	June 1961	Reconstruction of Mackenzie Highway—In progress.
Mackenzie Highway—Mile 44.45.....	Aug. 1961	Roadway curve easement—Completed.
Great Slave Highway.....	May 1960	Grading, culverts and crushed rock surfacing, Frank's Channel-Fort Rae—Completed.
Giant Mines Road—Mile 2-4.18.....	Sept. 1961	Grading and culverts—In progress.
Great Slave Highway Extension—Mile 0-20.....	May 1961	Construction of Pioneer Road—Completed.
Great Slave Highway Extension—Mile 1.6	Aug. 1961	Yellowknife River Bridge—In progress.
Great Slave Highway Extension.....	Oct. 1961	Approaches to Yellowknife River Bridge—Completed.

BRIDGES AND OTHER STRUCTURAL WORK, INCLUDING PRELIMINARIES,
PARTIALLY OR FULLY DESIGNED DURING FISCAL YEAR 1961-62.(a) *For Trans-Canada Highway in National Parks*

*Tupper No. 1 and Tupper No. 2 Snowsheds.....	Glacier
Broad Cove Bridge.....	Terra Nova
**Atlas No. 1 Snowshed.....	Glacier
*Eisenhower Overpass.....	Banff
Trans-Canada Highway Commemoration Monument.....	Glacier

(b) *For Department of Northern Affairs and National Resources*

**Rocky River Bridge No. 1.....	Jasper
*Rocky River Bridge No. 2.....	Jasper
**Fiddle River Bridge.....	Jasper
**Yellowknife River Bridge.....	Northwest Territories
**Hay River West Channel Bridge.....	Northwest Territories
Hay River—Pine Point Road Bridge.....	Northwest Territories
**Miette River Bridge.....	Jasper
Nigel Creek Bridge.....	Banff
Cameron River No. 1 Bridge.....	Northwest Territories
Cameron River No. 2 Bridge.....	Northwest Territories
*McQueston Bridge.....	Yukon
*Klondike River Bridge—Flatt Creek.....	Yukon
*Frances River Bridge.....	Yukon
*Athabasca River Bridge.....	Jasper
Money River Bridge.....	Yukon
*Forty Mile Creek Bridge.....	Banff
Watson Lake Northern Development Road Timber Bridges..	Yukon
Tuchitua Bridge.....	Yukon
Swede Creek Culvert.....	Northwest Territories
Reindeer Creek Culvert.....	Northwest Territories
Ross River Bridge, Mile 50.1.....	Northwest Territories
Ross River Bridge, Mile 54.8.....	Northwest Territories
Creek River Bridge.....	Northwest Territories
Banff—Windermere Highway, Mile 62.4-63.4, Culverts, wing- walls and headwalls.....	Kootenay

(c) *Miscellaneous*

Campbellton—Cross Point Bridge—Lighting.....	Campbellton
Perley Bridge.....	Hawkesbury
MacDonald-Cartier Bridge.....	Ottawa
Chaudiere Bridge Repairs.....	Ottawa
Royal Canadian Mint—Silver chloride filtration room repairs	Ottawa
Laurier Avenue Bridge—Repairs.....	Ottawa
Berthier Islands Bridges—Widening.....	Berthierville
Reports on—	
Kirkfield Lift Lock.....	Kirkfield
Peterborough Lift Lock.....	Peterborough
National Health and Welfare Building.....	Ottawa

Emergency Measures Organization—

Investigation and report shelter planning for University of Saskatchewan.....	Saskatoon
Detailed fall-out shelter investigation and design four buildings.....	Ottawa
Investigation and report on protection factor twelve buildings.....	Various locations
Standard—Engineering Drafting design.....	Ottawa

NOTE:

*Design on these projects was started in 1960-61 fiscal year and continued in 1961-62.

**Design on these projects was started in previous fiscal years. Work in 1961-62 consisted of further investigation and changes in design.

TRANS-CANADA HIGHWAY PROVINCIAL BRIDGES 1961-62
CHECKED AND APPROVED FOR SCHEDULE "B"

Newfoundland.....	2
Prince Edward Island.....	1
New Brunswick.....	1
Quebec.....	62
Ontario.....	17
Manitoba.....	1
Saskatchewan.....	1
British Columbia.....	27
	112

ROADS TO RESOURCES 1961-62

Newfoundland.....	2
Nova Scotia.....	3
Quebec.....	2
Ontario.....	1
Manitoba.....	1
	9

TESTING LABORATORIES DIVISION

Quantity of Each Type of Material Received

Material	Samples Received	
	Total	Sub-Total
Concrete Aggregates.....	351	
Concrete Test Specimens.....	4,078	
Concrete Products.....	229	
Cement.....	104	
Ceramic Materials.....	263	
Rock.....	363	
Metal.....	72	
Aluminum Windows.....	28	
Miscellaneous.....	123	
Sub-Total—Physical Section.....	5,611	5,611
Soils (Foundation Material).....	2,445	
Sub-Total—Soils Section.....	2,445	2,445
Creosote Oil.....	121	
Protective Coatings.....	901	
Petroleum Products.....	103	
Soaps and Detergents.....	41	
Waxes and Polishes.....	33	
Water.....	103	
Office Supplies.....	375	

TESTING LABORATORIES DIVISION—Concluded

Quantity of Each Type of Material Received

Material	Samples Received	
	Total	Sub-Total
Paper.....	17	
Sweeping Compounds.....	15	
Cement.....	22	
Miscellaneous.....	502	
Sub-Total—Chemical Section.....	2,233	2,233
Asphaltic Concrete Aggregates.....	66	
Asphaltic Products.....	734	
Asphaltic Concrete Mixtures.....	1,272	
Base Course Aggregates.....	223	
Concrete Aggregates.....	127	
Concrete Test Specimens.....	1,214	
Creosote Oils.....	63	
Soils Foundation and Embankment Materials.....	1,861	
Miscellaneous.....	23	
Sub-Total—Banff Section.....	5,583	5,583
TOTAL.....	15,882	15,882
Creosote Reports Reviewed.....	588	588
GRAND TOTAL (Samples and Reports).....	16,470	16,470

DEPARTMENT OF PUBLIC WORKS

TESTING LABORATORIES DIVISION

SOURCE OF SAMPLES RECEIVED AND QUANTITY FROM EACH SOURCE

Source	Samples	
	Total	Sub-Total
Department of Public Works—		
Harbours and Rivers Branch	3,013	
Building Construction Branch	5,302	
Purchasing and Stores Branch	113	
Property and Building Management Branch	142	
Development Engineering Branch	4,645	
TOTAL FOR PUBLIC WORKS		13,215
Department of Transport	795	
Central Mortgage and Housing Corporation	337	
Department of National Defence	103	
Department of Justice	411	
Department of Public Printing and Stationery	399	
Department of Northern Affairs and National Resources	236	
Other Sources	386	
TOTAL FOR OTHER SOURCES		2,667
TOTAL	15,882	15,882

REPORT OF THE TREASURY OFFICE

J. M. Wilkinson, Chief Treasury Officer

STATEMENT OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS
DURING THE FISCAL YEAR ENDING MARCH 31, 1962

	Dredging	Construction and improvements	Repairs and maintenance	Staff and sundries	Total
PUBLIC BUILDINGS					
Outside of Canada.....		349,170	77,421	371,411	798,002
Newfoundland.....		342,288	148,710	596,323	1,087,321
Nova Scotia.....		1,534,970	142,234	1,234,754	2,911,958
Prince Edward Island.....		54,543	41,645	187,074	283,262
New Brunswick.....		1,558,633	151,186	959,281	2,669,100
Quebec.....		4,431,611	1,205,066	6,702,816	12,339,493
Ontario.....		17,045,082	4,119,401	23,424,516	44,588,999
Manitoba.....		920,504	296,129	1,674,147	2,890,780
Saskatchewan.....		1,447,583	235,891	1,256,021	2,939,495
Alberta.....		883,636	192,643	1,753,568	2,829,847
Yukon and Northwest Territories...		808,223	126,918	377,808	1,312,949
British Columbia.....		1,416,749	461,352	2,960,224	4,838,325
TOTALS.....		30,792,992	7,198,596	41,497,943	79,489,531
HARBOURS AND RIVERS—ENGINEERING					
Newfoundland.....	474,105	6,283,743	328,901	460,220	7,546,969
Nova Scotia.....	651,682	2,471,847	535,753	6,576	3,665,858
Prince Edward Island.....	408,758	570,964	185,043	77,853	1,242,618
New Brunswick.....	877,599	1,330,714	181,142	112,574	2,502,029
Quebec.....	770,971	3,642,522	927,725	373,114	5,714,332
Ontario.....	696,857	10,216,165	403,649	60,676	11,377,347
Manitoba.....	215,966	103,757	45,237	89,576	454,536
Saskatchewan.....		21,765	2,229		23,994
Alberta.....	295,729	17,635	33,330	272,970	619,664
Yukon and Northwest Territories...		70,182	16,782	1,423	88,387
British Columbia.....	1,226,647	1,228,413	482,239	1,262,314	4,199,613
TOTALS.....	5,618,314	25,957,707	3,142,030	2,717,296	37,435,347
DEVELOPMENT ENGINEERING					
Newfoundland.....		2,368,311			2,368,311
Nova Scotia.....		1,767,818			1,767,818
Prince Edward Island.....		299,900			299,900
New Brunswick.....		2,970,512	120,449	1,431	3,092,392
Quebec.....		3,140,240	20,794	7,048	3,168,082
Ontario.....		14,720,567	191,856	83,781	14,996,204
Manitoba.....		1,829,293	1,125	432	1,830,850
Saskatchewan.....		70,972			70,972
Alberta.....		1,506,218			1,506,218
Yukon and Northwest Territories...			2,500		2,500
British Columbia.....		16,660,454			16,660,454
Testing Laboratories.....				1,036,460	1,036,460
TOTALS.....		45,334,285	336,724	1,129,152	46,800,161
MISCELLANEOUS					
Minister's Salary and Motor Car Allowance.....				17,000	17,000
General Administration.....				10,319,637	10,319,637
Fire Prevention.....				195,302	195,302
TOTALS.....				10,531,939	10,531,939
GRAND TOTALS.....	5,618,314	102,084,984	10,677,350	55,876,330	174,256,978

*NOTE: Details of expenditures covering individual contracts may be found in the Public Accounts for 1961-62.

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1961-1962

Revenue received by the Department of Public Works during the fiscal
year ending March 31, 1962

PUBLIC BUILDINGS

ORDINARY—

Rents from Public Buildings and related properties.....	\$ 1,607,864.35
Sales of old furniture, fittings and building material, etc.....	223.55
Sales of real estate.....	566,890.00
Commissions from telephone booths in public buildings.....	24,076.51
Refunds of Previous Years' Expenditures.....	298,194.25
	<u>\$ 2,497,248.66</u>

ENGINEERING WORKS

Sales of real estate.....	\$ 38,094.49
Earnings of Dry Docks, etc.....	
Champlain Dry Dock, Lauzon, Que.....	158,762.50
Lorne Dry Dock, Lauzon, Que.....	58,458.00
Selkirk, Man., Repair Slip.....	5,352.14
Esquimalt, B.C., New Dry Dock.....	166,925.66
	<u>\$ 427,592.79</u>

Revenue from leased works and plants—

Kingston, Ont., Dry Dock, Rental.....	\$ 12,100.00
Ferry privileges.....	681.00
Earnings of dredges and plants.....	23,126.58
	<u>\$ 35,907.58</u>
Rents from water lots, etc.....	75,640.25
Refunds of Previous Years' Expenditures.....	449,872.86
Sundry receipts.....	850.49
	<u>\$ 989,863.97</u>

MISCELLANEOUS

Damages to government property.....	\$ 6,309.83
Sundry receipts.....	110,955.36
	<u>\$ 117,265.19</u>

GENERAL SUMMARY

Public Buildings.....	\$ 2,497,248.66
Engineering Works.....	989,863.97
Miscellaneous.....	117,265.19
	<u>\$ 3,604,377.82</u>

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1961-62—Conc.

1961-62 REVENUE

The revenue for the year amounted to \$3,604,377.82 and was made up as follows:

Graving Docks.....	\$ 389,498.30
Rents.....	1,718,731.18
Casual Revenue.....	1,495,467.34
Ferries.....	681.00
	<hr/>
	\$ 3,604,377.82

A breakdown of the above revenue follows:

Graving Docks—Maintenance and Operation

Champlain Graving Dock.....	\$ 158,762.50
Lorne Graving Docks, Lauzon, Que.....	58,458.00
Selkirk, Man.—Repair Slip.....	5,352.14
Esquimalt, B.C.—Graving Dock.....	166,925.66
	<hr/>
	\$ 389,498.30

Rents

Public Buildings.....	\$ 1,607,864.35
Water lots.....	75,640.25
Kingston Dry Dock.....	12,100.00
Earnings of the Dredges.....	23,126.58
	<hr/>
	\$ 1,718,731.18

Casual Revenue

Sales of old furniture, etc.....	\$ 223.55
Sales of real estate—Buildings.....	566,890.00
Commission from telephones in Public Buildings..	24,076.51
Refunds of previous years' expenditures—Public Buildings.....	298,194.25
Refunds of previous years' expenditures—Engineering.....	449,872.86
Sundry receipts—Engineering.....	850.49
Damages to Government property.....	6,309.83
Sundry receipts—Miscellaneous.....	110,955.36
Sales of real estate—Engineering.....	38,094.49
	<hr/>
	\$ 1,495,467.34

Ferries

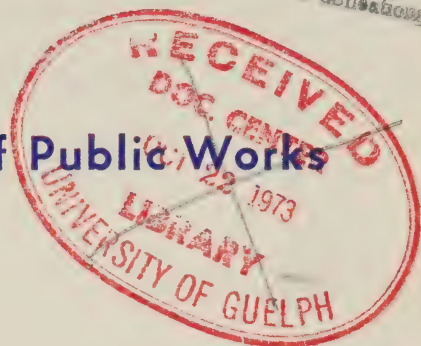
Licence fees.....	\$ 681.00
	<hr/>
	\$ 3,604,377.82

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Department of Public Works



ANNUAL REPORT

for the fiscal year ended March 31, **1963**



REPORT of the
DEPARTMENT of
PUBLIC WORKS

for the fiscal year
ended
MARCH 31,
1963



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1964

To His Excellency Major-General Georges Vanier, D.S.O., M.C., C.D., Governor-General and Commander-in-Chief of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1963.

Respectfully submitted,

JEAN-PAUL DESCHATELETS,
Minister of Public Works

November 28, 1963.

The Honourable Jean-Paul Deschatelets, Minister of Public Works, Ottawa.

SIR:

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1963.

Your obedient servant,
LUCIEN LALONDE,
Deputy Minister.

November 28, 1963.

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

As of March 31, 1963

Minister.....	Hon. E. Davie Fulton
Parliamentary Secretary.....	R. J. McCleave, M.P.
Executive Assistant to the Minister.....	L. Murray
Deputy Minister.....	Major-General H. A. Young
Special Adviser to the Deputy Minister.....	E. A. Gardner
Executive Assistant to the Deputy Minister.....	H. A. Langlois
Assistant Deputy Minister.....	George T. Jackson
Assistant Deputy Minister (Technical).....	G. B. Williams
Chief of Administrative Services and Secretary	Robert Fortier
Acting Director, Economic Studies Branch...	C. J. Daly
Acting Financial Adviser.....	L. B. Boyle
Chief, Purchasing and Stores Branch.....	H. G. Hunt
Chief, Information Services.....	Edward J. Marten
Chief, Personnel Branch.....	J. F. Maxwell
Chief, Legal Services.....	Alban Garon
Management Services.....	R. E. Rodgers
Dominion Fire Commissioner.....	R. A. Switzer

Regional Directors

Montreal, Que.....	R. J. Grenier (On Loan to Ford Foundation)
Edmonton, Alta.....	R. G. McFarlane

Harbours and Rivers Engineering Branch

Chief Engineer.....	G. Millar
Chief, Marine Excavation Division.....	J. F. Godsell
Chief, Maintenance and Operations Division.....	C. K. Hurst
Chief, Planning and Construction Division.....	J. E. Bright

District Engineers

St. John's.....	G. E. Knight
Charlottetown.....	T. B. McLennan
Halifax.....	J. A. Brown
Saint John.....	E. D. Manchul
Rimouski.....	G. Lajoie
Quebec.....	J. Vachon
Montreal.....	J. P. Chevalier
Ottawa.....	P. W. Walters
Toronto.....	R. P. Henderson
London.....	G. N. Scroggie
Fort William.....	E. B. Ashton (Acting)
Winnipeg.....	C. L. Davies
Edmonton.....	J. P. Livingston
Vancouver.....	A. W. Walkey

Development Engineering Branch

Chief Engineer.....	G. T. Clarke
Administrative Officer to Chief Engineer.....	W. M. Oakes
Chief, Engineering and Construction Division.....	W. R. Binks
Acting Chief, Structures Division.....	G. H. Fournes
Chief, Technical Co-ordination and Administration Division.....	H. M. Millar
Chief, Testing Laboratories.....	N. E. Laycraft

District Engineers

Newfoundland.....	A. L. Perley
Nova Scotia.....	H. F. Peters
New Brunswick and Prince Edward Island.....	H. A. Nason
Quebec.....	J. C. Beauchamp
Ontario.....	W. Koropatnick
Manitoba and Saskatchewan.....	J. A. Flatt
Alberta and Northwest Territories.....	J. E. Savage
Banff, Alberta (Western National Parks).....	A. H. MacKinnon
British Columbia.....	B. G. Harvey
Whitehorse, Yukon Territories.....	J. E. Kellett

Building Construction Branch

Chief Architect.....	J. A. Langford
Assistant Chief Architect.....	A. K. Mills
Assistant Chief Architect.....	W. A. Gibson
Chief, Executive Administration.....	W. D. Egan
Co-ordinating Architects	
Office Buildings.....	E. G. Langley
Penitentiaries.....	I. B. Simpson
Northern Construction.....	G. Pritchard
Laboratories.....	
Special Projects.....	W. H. Robinson

District Architects

St. John's.....	L. W. Hopkins
Halifax.....	P. W. Vaughan
Saint John.....	C. H. Cullum
Quebec.....	P. R. Martineau
Montreal.....	I. J. C. A. Goudreau
Ottawa.....	R. F. West
Toronto.....	I. M. Saunders
Winnipeg.....	H. C. Tod
Edmonton.....	A. E. Cook
Vancouver.....	R. J. Bickford

Property and Building Management

Director.....	D. A. Freeze
Assistant Director.....	E. C. Martel
Chief, Lands Administration Division.....	W. F. Cherry
Chief, Accommodation Division.....	A. S. Archard
Chief, Operations Division.....	E. W. Labelle

District Managers

St. John's.....	J. W. Pye
Halifax.....	L. B. Campbell
Saint John.....	R. S. Lawrence
Quebec.....	E. Raymond
Montreal.....	G. K. Aubut
Ottawa.....	B. Payette
Toronto.....	R. S. Fonberg
London.....	R. Isted
Winnipeg (Acting).....	A. Yule
Saskatoon.....	K. C. Moffatt
Edmonton.....	J. T. Gibson
Vancouver.....	G. E. McPhee
London, England.....	W. T. Rutherford

REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1963

Introduction

Although somewhat lower in dollar value than the previous year, the Department's work program during the 1962-63 fiscal year was an important one. Several major construction programs were completed during this period, work continued on others and many new projects were begun.

Expenditures from Departmental estimates during the year totalled \$149,693,703, compared with \$174,256,978 for 1961-62. The value of work carried out under encumbrances from other departments and therefore not reported in Public Works' accounts was \$30,385,240.39 compared with last year's figure of \$40,711,404.67. Overall expenditures were \$180,078,943.39. This was a reduction of \$34,889,439.28 over the same period a year ago when total expenses amounted to \$214,968,382.67.

General Comments

Perhaps the most noteworthy accomplishment of 1962-63 was the official opening of the Trans-Canada Highway at a ceremony held in Glacier National Park. This ceremony did not mark the end of construction of the Highway, but rather the fact that the road was open for traffic, from St. John's, Newfoundland to Victoria, on Vancouver Island, a distance of 4,860 miles.

Also of national interest was the commencement of construction of the Macdonald-Cartier Bridge between Ottawa and Hull. Shared equally by the Federal Government and the Provinces of Ontario and Quebec, this structure is expected to cost about \$9½ million and it is expected that it will be open for traffic in 1965.

The past fiscal year saw the completion of the \$5,500,000 low-level lift bridge which carries both road and rail traffic over the canal at Burlington, Ontario.

A further step was taken towards the construction of a crossing between Prince Edward Island and the mainland with the appointment in December, 1962 of consultants to assist the Department in determining and planning the most suitable type of crossing.

The multi-million dollar improvement program of the harbour at St. John's, Newfoundland, continued to be the major project of the Department's Harbour and Rivers Engineering Branch. During the past year about \$3.7 million was spent mainly on new marginal wharves from Bishop's Cove to Job's Cove. The St. John's Harbour project will cost an estimated \$13,000,000 and is scheduled for completion in 1964.

Work commenced during the year on a project of international significance. This was the start of construction on a new terminal at Prince Rupert, B.C. to provide facilities for an all-weather ferry service designed to handle the ever-increasing traffic between Prince Rupert and Skagway, Alaska. Preliminary studies of the \$700,000 terminal have been completed and construction of the combined United States and Canadian Customs and Immigration facilities are underway and are scheduled to be finished in March, 1964.

As chief construction agency of the Federal Government the Department continues to assume additional responsibilities. At the beginning of the present fiscal year, Public Works became the construction agency for the Penitentiary Service of the Department of Justice. Already underway, or in the planning stage, are new security institutions at Springhill, N.S.; Gagetown, N.B.; Cowansville, Que.; St. Anne des Plaines, Que. and in Ontario at a location not yet selected.

Expenditures and Revenue

The details of expenditures for the year may be classified as follows:

Public Buildings.....	\$ 72,223,445.00	
Development Engineering.....	35,310,973.00	
Harbours and River works.....	25,425,414.00	
Dredging, plant, etc.....	5,351,573.00	
Minister's salary and Motor car Allowance.....	16,132.00	
Departmental Administration.....	11,118,896.00	
Fire Prevention.....	247,270.00	
		<hr/>
		\$149,693,703.00
Expenditures made under encumbrances from other departments but not reported in Public Works accounts:		
Public Buildings.....	\$ 14,826,337.37	
Development Engineering.....	10,448,110.35	
Harbours and Rivers.....	5,110,792.67	
		<hr/>
		\$ 30,385,240.39

The revenue for the year amounted to \$3,296,143.14 and is made up as follows:

Graving Docks.....	\$ 400,316.16	
Rents.....	1,847,802.14	
Casual Revenue.....	1,047,743.84	
Ferries.....	281.00	
		<hr/>
		\$ 3,296,143.14

ADMINISTRATIVE SERVICES AND DEPARTMENTAL SECRETARY

During the year, the Departmental Secretary advertised for tenders for 324 construction projects and fuel. A total of 1,760 tenders for construction projects and 4,544 tenders for fuel were received, opened, and scheduled. In addition, 5,842 invited tenders for purchases were received, opened and scheduled. Tenders for 248 projects costing under \$25,000 each which were advertised and received in the District Offices were processed through the Secretary's Office. Approximately 65% of the securities received with tenders were in the form of Bid Bonds. Cheques and Government Bonds having a value of \$8,287,759 were handled in connection with tenders and contract awards. Eight hundred and thirty-four sets of plans and specifications requiring a returnable deposit were supplied to contractors through this office. A standard tender form for construction projects was devised and put into use.

Central Registry received and processed 208,235 pieces of correspondence of which 45,746 pieces were precis-written. Five thousand, seven hundred and fifty-two new files were opened. The communications section handled 6,997 telegrams and 24,439 telex messages. Seventy-five percent of departmental records are now scheduled for disposal.

The Forms Control Section processed 124 directives and circulars. One hundred and four forms were revised, nine new forms produced and 14 forms declared obsolete. An index of departmental forms was published, the departmental business directory was revised and the index of departmental directives and circulars was brought up to date.

Photographic Services produced 1,125,788 square feet of blueprints and whiteprints for construction projects and 42,572 square feet of other related reproductions. The unit also produced 85,322 square feet of photostats, 3,480 film negatives and 23,224 photoprints and enlargements. The production of a new type of report cover made by the whiteprint machine was commenced. These covers are produced in two basic sizes, 8½ inches by 11 inches, and 8½ inches by 14 inches, in various colours.

ECONOMIC STUDIES BRANCH

This Branch is concerned mainly with the assessment of proposed public projects from the economic point of view, especially where capital outlays are involved. During the year several hundred such projects were referred to the Branch, and specific recommendations were made on each.

The Branch also made assessments of prospects for population and economic growth in a number of communities in various parts of the country (including a number of metropolitan areas), where provision of new or additional space for accommodation of several departments was being considered. This function complemented the Branch's representation on the Treasury Board Advisory Committee on Accommodation Standards.

Members of the Branch continued to make on-site surveys of individual harbours as the need arose. The Interdepartmental Committee on Canadian Harbours, on which the Branch is represented, made a number of investigations and recommendations on specific port questions.

FINANCIAL SERVICES DIVISION

The main work carried out by the Division during the year involved the preparation, analysis and co-ordination of the Main and Supplementary Estimates of the Department; responsibility for accounting and budgetary control throughout the Department; the development of policies and procedures relating to these functions; and the planning and implementation of policies and procedures relating to the Department's contract administration. The Division provided representation for the Department during the year on the Treasury Board Advisory Committee on contracts.

FIRE PREVENTION BRANCH

In 1962, arrangements were completed whereby the Dominion Fire Commissioner was made responsible for the fire protection and fire prevention functions of the Canadian Broadcasting Corporation, in addition to the civil departments and related agencies. The National Harbours Board also became a member of the Federal Fire Prevention Committee.

Six hundred and ten fires, causing a loss of \$3,214,282, were recorded for the calendar year 1962. Although this represented an appreciable increase over the 558 fires for a loss of \$443,512 for the previous year, it was mainly due to fire damage caused by a riot at St. Vincent de Paul Penitentiary. One hundred and fifty-four of the year's fires were investigated by the Branch.

As part of an intense programme of employee instruction and training, 58 lectures and demonstrations in fire prevention procedures and the use of hand fire equipment were given to some 1,500 employees. Over 100 fire drills were initiated to test building evacuation procedures. Some 50,000 Civil Servants in all parts of Canada took part—an appreciable increase over the previous year.

Annual Fire Prevention Contest entries increased from 135 in 1961 to 207 in 1962 reflecting the increased enthusiasm displayed by departments in fire prevention education practices. In the formal presentation ceremony in the

Senate Chambers, the Honourable Donald M. Fleming as Acting Prime Minister presented the top award—the C. A. Thomson Challenge Shield—to the National Research Council.

A 50 page Fire Prevention Educational Guide for School Teachers from Kindergarden to Grade 12 was prepared, in both English and French language editions. It was well received by provincial educational authorities and to date over 200,000 copies have been purchased for use in schools throughout the Country. The 41st Annual Report of the Dominion Fire Commissioner giving a statistical analysis of a decade of fire losses in Canada was prepared and published in a bilingual edition. Three thousand copies were distributed to Federal, Provincial and Municipal agencies, foreign government authorities and reference libraries. Over 1,250 film bookings were made by the Branch Film Library, a record number reflecting an increasing awareness of fire prevention practices.

The administration of the "Fire Prevention Ordinance (1962)" of the Yukon Territory was made the responsibility of the Branch with the appointment of a staff member as Fire Marshal in addition to his existing position as Fire Marshal of the Northwest Territories. Ten inspection tours were made in both Territories visiting 22 communities for a total period of 16 weeks.

INFORMATION SERVICES DIVISION

Information Services Division, through the various district offices of the Department across Canada, was responsible during the year for the organization and control of some 50 ceremonial openings for public buildings, public wharves, bridges, and other structures including the official opening of the Trans-Canada Highway in Rogers Pass on September 3.

The Division also published "The Dispatch", the staff magazine of the Department and operated a press clipping service covering 44 daily newspapers and 30 monthly magazines.

During the year, the Division issued some 250 press releases announcing the award of contracts for Public Works' projects. The Division also prepared many statements and summaries in response to requests for information from reporters for daily and weekly newspapers, magazines and radio and television stations.

LEGAL SERVICES

Under the amended Navigable Waters Protection Act, Railway Act and National Energy Board Act a total of 445 applications were processed during the fiscal year. Included in this number were several applications for approval of the actual construction of bridges over the St. Lawrence River pursuant to Special Acts of Parliament. During the previous fiscal year, 421 applications were processed.

Correspondence from the public requesting information relating to the Navigable Waters Protection Act continues to increase and includes many complaints which require investigation by Departmental Engineers. Most of these complaints related to hazardous conditions of navigation and pollution of waters.

Submissions directed to Treasury Board and Recommendations to Council totaled 904 during the year.

Formal contracts (involving an expenditure in excess of \$5,000.00) prepared by this Division totaled 707, including 378 contracts for engineering projects, 219 for construction and major repairs for existing buildings and 110 for maintenance and services.

Three hundred and ninety-eight title documents relating to individual parcels of land conveyed to the Department were filed in Law Records Registry.

The Crown acquired possession of 657 properties by means of new leases and renewal of existing leases.

Eighty leases and subleases of Crown-owned and Crown-controlled properties were granted to individuals or Corporations.

Approximately 79 properties were declared surplus for disposal to Crown Assets Disposal Corporation.

MANAGEMENT SERVICES

During the year, the unit undertook a variety of studies, one of the most important of which resulted in the implementation of work control procedures for the tradesmen engaged in the maintenance of Federal buildings in the Ottawa area. These procedures included methods of time and cost accounting and resources control through back-log management. Believed to be more advanced than any previously instituted in the Canadian Public Service, their application will be extended to similar areas in the Department's Operating Districts.

Other studies included a general review of operations in certain major District Offices, procedures for controlling vehicle use, acquisition of property and Departmental Purchasing and Stores functions.

PERSONNEL BRANCH

During the past year, an organization, methods and staffing survey of the Superintendent of Government Buildings was completed and approved. A survey of position classifications of the Headquarters Development Engineering Branch was undertaken and substantially completed. The duties of all positions in the Harbours and Rivers Engineering Branch and some units of Headquarters Departmental Administration were brought under review.

The Branch, in co-operation with the Civil Service Commission, held competitions to fill 171 vacancies; of these 126 were either interdepartmental or open to the general public; and the balance of 45 restricted to employees of the Department.

The Staff Establishment Review for 1962-63 resulted in a reduction of 14 positions in the Department and set the authorized strength at 9,406 positions:

Administrative & Professional	577
Technical, Operational & Services	5,588
Clerical	708
Prevailing Rate	2,003
Ships' Officers and Crews	530
	<hr/>
	9,406

Programmes sponsored by the Training Division included orientation courses for new employees, letter and report writing training, supervisory training, and training of cleaning service personnel. The Department also participated in public administration courses for senior and intermediate officers which are sponsored by the Civil Service Commission. Departmental staff attended American Management Association courses, as well as those sponsored by other organizations engaged in the training of administrators. Each year some sixty junior departmental staff are enrolled in the Civil Service Commission's course "Theory of Office Management".

For the past three years the Department has been engaged in an extensive work training programme for cleaning service staff. The Training Division, in co-operation with Property and Building Management Branch officers, developed a comprehensive course in modern building cleaning techniques, selected and

trained a number of instructors and programmed the actual training. The programme was instituted in Ottawa, Montreal and Toronto, and in each of these centres local staff conducted these courses and will continue to conduct courses for new employees.

At the end of the fiscal year over 2,000 cleaning service staff had attended courses—approximately 1,600 in Ottawa, 200 in Montreal and 225 in Toronto.

This Department also instructed supervisors of other Government Departments and agencies in modern building cleaning techniques to prepare them for instituting a similar programme within their own organization.

Under the auspices of the External Aid Programme the Department provided training assignments in various Districts for Colombo Plan trainees from overseas.

The level of participation in the Suggestion Award Plan was increased through greater supervisory and staff interest, the ratio reaching 5.9 suggestions per 100 employees, as compared to 3.0 for all other participating Government Departments. During the year 960 suggestions were considered. Departmental employees were granted 72 awards valued at \$2,044.00, representing a first year savings to the Department estimated at \$23,756.00 or more than double that of the previous year.

Mr. John Vautour, Territorial Engineer and Mr. Henry Leblanc, Foreman, were awarded the British Empire Medal for gallantry. These decorations were awarded by Governor General Vanier on behalf of Her Majesty the Queen, in recognition of their bravery in rescuing a fellow employee from drowning on July 15, 1962.

PURCHASING AND STORES BRANCH

During 1962-63, a total of 13,141 requisitions were received from 117 organizations which included 72 Federal Departments and Agencies, apart from establishments under the jurisdiction of the Department of Public Works. This is a reduction of 5,333 requisitions compared with those received in 1961-62. This reduction can be attributed to the economy measures instituted by Federal Departments in 1962-63, as well as the rigid controls implemented by the Branch to ensure that only extreme requirements were authorized for supply. Further, the Branch's 1961-62 programme of reconsidering previously rejected requisitions enabled the majority of Federal offices to obtain adequate requirements in that year.

Bulk purchasing was expanded to more commodities with the resultant reduction in the costs of the items purchased. In this connection, Treasury Board directed in 1962 that the Department of Defence Production transfer to this Branch the purchasing of 16 types of standard furniture required by the Armed Services. However, the Department of National Defence, in accordance with the existing economy measures, kept its requisitions to a minimum.

A total of 5,601 purchases were effected at Headquarters as compared with 6,470 in 1961-62. The reduction reflects the decrease in requisitions. These orders, amounting to approximately \$7,500,000 resulted in 11,500 invoices being processed for payment by Headquarters staff.

District offices made 24,000 local purchases involving \$3,350,000, which resulted in 120,000 invoices being processed through District Treasury Offices.

The introduction of a new form to liquidate master purchase orders by Headquarters and Districts contributed greatly to the reduction in the issue of individual purchase orders.

A total of \$57,677.11 was expended on a recoverable basis for 22 Departments or Agencies. This resulted in the preparation, recording, and collection of 409 accounts receivable vouchers.

The Investigational Staff and the Senior Stores Control Officer reviewed or investigated 9,751 requisitions; the balance of 3,390 were considered by the Operating Branches of the Department.

The replacement value of furniture and furnishings, presently held by Federal Departments, etc., as established by inventory records, is approximately \$44,302,000.

So that all Departments and Branches across Canada are afforded the best possible disbursement services, this Branch has large Area Stores at Ottawa, Toronto, and Montreal; and lesser storage facilities at St. John's, Halifax, Saint John, Quebec City, Winnipeg, Saskatoon, Edmonton, and Vancouver. The operation of these smaller Units is the responsibility of the District Officials with policy direction and guidance being given by Headquarters Officials. However, the three larger Area Stores are under the direct supervision of the Branch. A total of 12 Board of Survey meetings were held to consider applications for write-off and 240 Reports of Surplus were submitted to Crown Assets Corporation for disposition. A total of 291 write-offs from Districts and Headquarters were processed during 1962-63.

During the year, the Branch was also called upon to assist other Departments of Government in arrangements for International and National Conferences. This included advice on decor and assistance in the layout of furniture and other facilities, as well as the actual loan of furniture and furnishings for such purposes. Some of these conferences were the North Atlantic Treaty Organization Conference, the Export Trade Conference, and the Forestry Conference.

PROPERTY AND BUILDING MANAGEMENT BRANCH

During the year the Branch was involved in the administration of 1,558 Crown-owned buildings and 1,330 leased premises, with a total area of 31,030,000 square feet, of which 4,220,000 square feet were leased.

The total cost of occupying and maintaining these premises was \$43,822,851, including rents totalling \$7,932,507 for leased premises and miscellaneous leases.

The following is the space distribution and related cost of occupancy:

NET USABLE AREA

	Crown-owned Bldgs.		Leased Premises		
	No.	Sq. Ft. (1000's)	No.	Sq. Ft. (1000's)	Cost
Newfoundland.....	91	490	40	36	\$ 820,584.35
Nova Scotia.....	87	746	54	167	1,311,189.64
Prince Edward Island.....	12	162	6	2	214,471.94
New Brunswick.....	76	753	36	41	997,652.06
Quebec.....	314	4,185	281	941	7,321,608.15
Ontario.....	363	5,398	295	822	7,196,830.10
Manitoba.....	88	1,308	73	114	1,614,125.13
Saskatchewan.....	138	1,031	137	88	1,357,804.69
Alberta and N.W.T.....	126	1,328	154	211	1,961,695.06
British Columbia & Y.T.....	136	2,395	120	216	3,214,825.04
U.S.A.....	—	—	2	4	33,071.34
London, England.....	1	106	4	7	632,332.54
Ottawa—Hull.....	126	8,908	128	1,571	17,146,660.60
	1,558	26,810	1,330	4,220	43,822,850.64

In addition to the 1,330 leased premises shown in the table above, 126 miscellaneous leases were in effect during the year covering easements, sidewalk areas, rights of way, etc.

In addition to land required by the Department of Public Works, property was also acquired for the Departments of Justice, Agriculture, Fisheries, National Health and Welfare, Veterans Affairs, and Transport, as well as for the Royal Canadian Mounted Police. A total of 362 parcels of land were acquired at a cost of \$3,254,345.28.

Independent fee appraisers were employed in many cases to establish the Fair Market Value of the properties being acquired in order to safeguard the interests of the Crown.

Pursuant to a directive of the Cabinet following a recommendation of the Royal Commission on Government Organization, work commenced on the compilation of an inventory of all Crown-owned land, buildings and leased properties. This inventory will prove an essential and effective tool for efficient management and control of all Government property.

Where Crown-owned space became available by reason of the transfer of units of Government from one location to another, every effort was made to secure a financial return by leasing vacant areas at commercial rates. During the year \$412,390 in revenue was realized in this manner. In addition, rents collected from occupants of Crown-owned housing administered by the Department totalled \$1,327,060. Public telephones located in Federal accommodation yielded commissions of \$23,560.

In the maintenance of buildings, expansion of the policy of cleaning buildings by contract rather than Departmental staff continued. In addition, a start was made on the creation of work performance standards for trades staff.

HARBOURS AND RIVERS ENGINEERING BRANCH

The responsibility of this Branch during the year involved the construction and repairs of some 1,807 projects including wharves, breakwaters, protection works and other harbour facilities. A total of 55 projects were still in progress at the end of the fiscal year.

Dredging was carried out in 122 locations, involving the removal of 4,996,158 cubic yards of material.

Locks, dams and drydocks were maintained and a fleet of dredges, scows, tugs, inspection and survey boats operated to carry out the Departmental program.

Newfoundland

In 1963 the St. John's harbour improvements programme was the major project carried out by the Harbours & Rivers Engineering Branch. About 3.7 million dollars was spent during the year on this project, which is estimated to cost a total of 13 million dollars.

The contract for construction of the North Shore marginal wharves extending from Bishop's Cove to Job's Cove has been completed. These wharves which cost about \$2,500,000.00 will provide berthing for medium to large size ships. On January 9, 1962, a contract valued at \$30,793.00 was awarded for the construction of two small freight sheds west of the Main Terminal. These sheds were completed in 1962 as were the two large Main Terminal transit sheds being built under a contract valued at \$1,420,000.00.

Three new major contracts were awarded during the year. A contract amounting to \$714,660.00 for reconstruction of the Southside road was awarded on August 24, 1962. On August 15, 1962, a services contract for \$549,610.00 was awarded and included the construction of a water main, an interceptor sewer and a force main along the North Shore of the harbour. The North Shore

Road Work contract valued at \$972,338.00 was awarded on November 8, 1962, and provides the surface facilities necessary for efficient operation of modernized harbour facilities.

An extensive harbour and railway-yard development at Corner Brook for the Department of Transport and the C.N.R. was finished this year. This development consisted of the construction of a coastal wharf of reinforced concrete construction. The other major part of this development was the placing of approximately 600,000 tons of fill adjacent to the wharf. This filled area will provide the C.N.R. with badly needed yard space and room for future expansion. In all, the Corner Brook project has involved an expenditure slightly in excess of \$2,000,000.00.

Major reconstruction and enlargement of the C.N.R. terminal facilities at Lewisporte continued during the year. This work is now nearing completion, and when finished, will represent an investment of approximately \$1,400,000.00.

A contract amounting to \$192,000.00 for reconstruction and extension of the Public Wharf at Ship Cove, Port de Grave, was awarded on June 29, 1962. This structure will assist the fishermen of the area in the discharge and handling of their catch. A fill area 100 feet long by 75 feet wide immediately behind the marginal wharf will provide ample parking and storage space for the fishermen.

Plans and specifications for the construction of a Marine Railway at Clarenville were completed and it is expected that tenders will be called next spring. When completed this structure will permit ships of up to 500 tons to be pulled ashore for inspection and repair.

Nova Scotia

A contract amounting to \$381,390.00 for repairs to Jetty 1, H.M.C. Dockyard, Halifax, Nova Scotia, was awarded in December, 1962, on behalf of the Department of National Defence (Navy).

Pier "C" at Pictou has been reconstructed at a cost of approximately \$575,000.00. This structure was destroyed by fire in 1959 and its reconstruction once again provides deep sea shipping facilities for the port of Pictou. Rail and warehouse facilities have also been provided.

Prince Edward Island

In Prince Edward Island, because of the great importance of the tourist trade to the economy of the island, harbour improvements have been continued at both Wood Islands and Borden ferry terminals. Wood Islands is the P.E.I. terminal for Nova Scotia traffic, while Borden is the P.E.I. terminal for New Brunswick traffic.

Dredging and construction of the west breakwater at Wood Islands were completed in 1962-63. Reconstruction of the east breakwater is well advanced, with completion anticipated in the summer of 1963.

At Borden, extensive harbour improvements are being carried out for the Department of Transport, including dredging and the proposed construction of a new C.N.R. ferry terminal extension, at an approximate total cost of \$1,215,000.

Construction is continuing on the Department of Transport Marine Agency Wharf in Charlottetown of an interesting steel pile design, to cost approximately \$1,500,000.

In co-operation with the Development Engineering Branch, surveys were carried out at Rustico Harbour as a necessary part of the movable bed model study by the National Research Council, to design suitable harbour entrance protection and maintenance structures.

New Brunswick

Studies were undertaken and plans prepared for major improvements to the recently completed deep water wharf at Dalhousie. The work, includes extensive dredging to deepen and enlarge the mooring berth plus strengthening and fendering the wharf to enable it to handle 30,000-ton ore carriers.

Developments in the New Brunswick fishing industry, including the introduction of the stern trawler, have created a need for additional wharfage plus increased depths in the existing fishing harbours, particularly in Gloucester County. Consequently, a sizeable programme of dredging and improvements was carried out to meet the requirements.

At Saint John, maintenance dredging continued in Courtenay Bay with 688,000 cubic yards of material being removed during the year. The Negro Point breakwater was further extended and now links Partridge Island with the mainland. The closing of the gap between the breakwater and the island has resulted in a marked improvement in conditions inside the harbour during storms from the southwest.

Québec

A new Ferry Terminal at Matane, was built to improve ferry service between Matane and Baie Comeau, in order to meet the demand for improved ferry services to the North Shore.

Dredging of an entrance channel at Havre Aubert was completed as the first step towards the development of a shelter harbour there. Plans were prepared for the construction of a Commercial Wharf as the second and final step of this development which will permit quicker and safer cargo handling at this harbour which serves the eastern part of the Magdalen Islands.

Development of the fishing harbour at Etang des Caps was continued in order to permit safer conditions for fishing vessels at that location.

As a result of the combined action of the Federal Government, the Provincial Government and private interests, the North Shore of the St. Lawrence River is undergoing tremendous development.

Baie Comeau Harbour, in particular, is being developed and enlarged at great speed. In conjunction with the Provincial Government and the Quebec North Shore Paper Company, a new wharf extension, 1,000 feet long was undertaken during this fiscal year. This consists of reinforced concrete caissons with perforated walls on the sea-side. The dissipation of wave energy by this perforated wall is a unique feature resulting from extensive research and small scale model studies and has drawn the attention of all the engineering world.

The development of the North Shore area is also leading to increased cross-river traffic; the new ferry boat "PERE NOUVEL" is assuring a most efficient service and new loading facilities are already at the preliminary planning stage.

The new ferry wharf at Les Eboulements is progressing rapidly and new ferry facilities are being planned for St-Siméon-Rivière-du-Loup.

Ontario

The wharf at Cornwall, completed during the fiscal year, was constructed of reinforced concrete cribs 406 feet long and 46 feet wide.

Completion of the 500 foot East Harbour Wharf provides the first structure in Oshawa Harbour designed for ultimate use at Seaway draft. The new wharf has been built on concrete-filled pipe piles based on solid rock and supported by submerged crushed stone and armour stone which absorbs wave energy under the reinforced concrete deck, thus reducing the choppy wave action caused when waves are reflected from wall to wall in the harbour. A crushed stone area extends 56 feet behind the deck and a steel pile curtain wall is driven for the full length of the rear edge of the 50-foot wide concrete dock surface. The curtain

wall permits the stone below the deck to maintain the slope (required for successful dampening of the waves) while the land area adjacent to the wharf is loaded.

The central wharf, around which the harbour is built, occupies an area in excess of 8 acres, and is provided with a Marine Terminal which is under the administration of the Department of Transport. The Marine Terminal consists of a warehouse 1,000 feet long by 150 feet wide, and a three-storey office building. The harbour is well protected from Lake Ontario storms by two breakwaters with an aggregate length of approximately 3,600 feet. Total value of work undertaken by the Department of Public Works at Port Credit since 1953 is approximately \$4,280,000.

The completion of dredging in the Ship Channel and Turning Basin in Toronto Harbour opened the public docks at the eastern extremities of the harbour to navigation at Seaway draft. The newly completed Ship Channel extension is designed to take stockpile loads of 2,000 pounds per square foot while providing Seaway depth in the slip.

The Department's schedule for dredging Port Arthur Harbour to seaway depth was completed last year so that ships may now proceed with maximum drafts as provided for by the St. Lawrence Seaway System.

Construction of the Keefer Lakehead Terminal was completed last year and was officially opened June 23, 1962.

Alberta and Northwest Territories

A steel sheet pile wharf, constructed at Cambridge Bay, N.W.T., was designed to resist uplift and lateral forces resulting from severe ice field under tidal conditions. Although the shipping season at this location is limited to approximately two months, the material was shipped, the wharf constructed, and equipment returned within this period.

A wharf to serve the oil refinery and distributing centre at Norman Wells was constructed. The Department provided the engineering plans for the structure and contributed fifty percent of the cost of construction which was carried out by Imperial Oil Limited. This steel sheet pile structure was designed to withstand the severe flood and ice conditions experienced during the annual spring breakup of the Mackenzie River.

Improvements and maintenance of the Athabasca—Mackenzie River systems by dredging with Departmental Plant were continued throughout the navigation season.

DEVELOPMENT ENGINEERING BRANCH

The activities of the Development Engineering Branch are principally in the field of highway and bridge construction. The Branch acts, on the one hand, as a contract and administration agency in connection with agreements between Canada and the Provinces under the Trans-Canada Highway Act and the Roads-to-Resources Program, and, on the other, as a construction agency in the National Parks and the Territories. In addition, it carries out other engineering projects of a development nature.

TRANS-CANADA HIGHWAY AND ROADS-TO-RESOURCES AGREEMENTS

The Trans-Canada Highway Act, and amendments thereto, provides for Canada's participation in the cost of constructing the Highway. Under the agreements provided for in this legislation, Canada contributes 50% of the cost of constructing the Highway, plus an additional 40% on one-tenth of the mileage of the Highway in each Province. The existing legislation limits the aggregate amount that Canada may contribute to \$400 million, and payments may be made until May 31, 1964, for work done up to December 31, 1963.

Full details of the progress of construction, commitments accrued and payments made to each province under the agreements may be found in the "Report of Proceedings under the Trans-Canada Highway Act" for the fiscal year ended March 31, 1963.

The Branch also administers the Federal Roads-to-Resources Agreements with the provinces on behalf of the Department of Northern Affairs and National Resources. Under this program, agreements have been entered into with the provinces to provide for Canada's contribution towards the cost of constructing resources development roads. The extent of the federal contributions is 50% of the cost of constructing approved roads, up to a maximum of \$7.5 million for each province.

FEDERAL PROJECTS

While a detailed tabulation of the various construction projects (other than those under Trans-Canada Highway and Roads-to-Resources agreements) undertaken by the branch will be found on page 45 the following illustrates some of the more interesting activities undertaken in various parts of the country:

Newfoundland

Survey and inspection of construction services were carried out on behalf of other branches, mainly with respect to Harbours and Rivers projects.

Prince Edward Island

Studies continued during the year on the proposed \$2,000,000 Rustico Harbour crossing. The National Research Council undertook a model study of the harbour area while the Department undertook extensive sounding surveys. The bridge study is completely integrated with a harbour improvement study being undertaken by the Harbours and Rivers Branch and are a prelude to the Department deciding on the most suitable type of crossing from both an engineering and economic viewpoint.

The planning of a causeway and associated structures for crossing the Northumberland Strait also continued. In December 1962, consultants were engaged to assist the Department in determining and planning the most suitable type of crossing. The appointment in the form of a Joint Venture, incorporated under the name of Northumberland Consultants Limited, comprises three firms of consulting engineers:

H. G. Acres Company Ltd., of Niagara Falls, Ont., and Saint John, N.B.
Langevin, Letendre & Monti, Montreal and Shippagan, N.B.

Canadian British Engineering Ltd., of Toronto and Halifax, N.S.

On behalf of the Harbours and Rivers Branch, a contract for widening the wharf approach at Port Borden ferry terminal, was awarded in the Fall of 1962 for completion by the Summer, 1963.

New Brunswick

The Branch undertook a survey of the Miramichi River and Bay for the Harbours and Rivers Branch to determine the feasibility and cost of deepening the navigational channel to 26 feet along the 41 miles from Fox Island to South Nelson. Field work commenced late in the Fall, 1962 and the study is scheduled for completion in the summer, 1964.

A lighting system was installed on the new Campbellton—Cross Point Bridge. The Roosevelt Memorial Bridge between Lubec, Maine and Campobello Island, N.B. was opened on August 13, 1962. Canada's contribution towards the cost of this bridge amounted to \$354,000.

Nova Scotia

In Cape Breton Highlands National Park, the reconstruction of the first 33.5 miles of the Cabot Trail and approximately 7 miles between Effie's Brook and Neil's Harbour were completed.

On behalf of the Department of Mines and Technical Surveys a contract was awarded for paving and storm sewer construction at the Oceanographic and Hydrographic Station, Dartmouth, N.S. The work was completed at a total cost of \$263,000.

Quebec

The major activity in Quebec was in connection with the construction of the Trans-Canada Highway as indicated in the "Report of Proceedings under the Trans-Canada Highway Act."

In addition, the Branch undertook a study of the water supply system at the St. Vincent de Paul Penitentiary; a water supply study at the New Correctional Institute, St. Pie; and paving, grading landscaping improvements at the Customs Highway Station, Commins Mills.

Ontario

The low level lift bridge over the canal at Burlington, which cost approximately \$5½ million, was opened to rail traffic in mid-March 1962 and to road traffic in mid-June 1962.

The Branch gave assistance to the Department of Transport in reconstruction work at the Peterborough Lift Lock and to the Department of Justice in the water supply at the proposed Markdale-Dundalk Medium Security Institute. A wide variety of engineering work was undertaken in the Ottawa area relating to the greenbelt, the Central Experimental Farm, the underground utilities servicing Federal Buildings and the layout of new Federal building sites.

Manitoba

At Churchill, the construction of an access road, intake structure, pipeline and pumphouse for a new water supply system with its source as the Churchill River was completed. The system will be in operation during 1963 and will augment the existing supply systems which operate with Lake Isabella as the source of supply.

Construction commenced on the 5½ mile Agassiz Ski Hill Road in Riding Mountain National Park.

Saskatchewan

A construction contract was completed on the Halkett Lake and Crean Lake roads in Prince Albert National Park. Other projects included completion of water and fire mains renewal at the R.C.M.P. Barracks in Regina, well drilling at North Portal and survey work for the relocation of the Experimental Farm, Regina.

Alberta

In Banff National Park, the final lift of paving on the Trans-Canada Highway and the construction of the Eisenhower Interchange at the junction of the Trans-Canada Highway and the Banff-Windermere Highway were completed. The first lift of paving on the Eisenhower Interchange was commenced and material for the lighting of the Norquay interchange was purchased.

Some \$3.3 million was expended on construction of the Banff-Jasper Highway. Grading has now been carried to Mile 115 and between Mile 125 to Mile 139. The bituminous surfacing was completed to Mile 105. The Athabasca River Bridge at Mile 139.5 was also completed.

Construction was completed on the first 11 miles of the Jasper-Edmonton Highway and on the first 5.5 miles of grading of a scenic road between Medicine Lake and Maligne Lake.

Construction to Mile 13.8 on the Chief Mountain Highway in Waterton Lakes National Park neared completion.

British Columbia

The highlight of the year, was the official opening of the Trans-Canada Highway at a ceremony in the Rogers Pass on September 3, 1962. This was preceded by an official motorcade which travelled the total length of the highway from the east to the west coast, an overall distance of 4,860 miles. Rogers Pass in Glacier National Park, British Columbia was selected as the site and focal point due mainly to its scenic magnificence and the major engineering challenge it presented to construction of the highway.

The final lift of paving on the Trans-Canada Highway in Yoho National Park was completed to Mile 16, and well advanced over the remaining 12.4 miles. In Glacier National Park, the snowshed construction programme continued with the award and virtual completion of a contract for Tupper No. 1 and No. 2 snowsheds at a combined cost of approximately \$1.4 million. Total 1962-63 expenditures on the Trans-Canada Highway in these Parks was approximately \$3,000,000.

In addition, paving was begun on the Emerald Lake Road in Yoho National Park.

In Kootenay National Park, construction of the Banff-Windermere Highway was completed to Mile 62.4. Engineering studies, designs and contract documents were prepared for the last $2\frac{1}{2}$ miles of this highway and involves the construction of a tunnel through the Iron Gates and passage through the Sinclair Canyon. Work will get underway during 1963-64.

Yukon Territory

During 1962-63, several projects carried over from the previous year were completed, and two new contracts were awarded.

Three bridges were completed—the McQuesten River Bridge and the Ogilvie Bridge on the Stewart Crossing—Dawson Road, and the Klondike River Bridge at Mile 0.2 on the Flat Creek—Eagle Plain Road. A contract was awarded for the erection of a bridge across the Frances River at Mile 35.8 on the Watson Lake—Ross River Development Road, and this structure was completed except for painting.

Two grading contracts awarded in 1961-62 were also completed—Mile 34.8—69.2 on the Watson Lake—Ross River Road and Mile 0—80 on the Nahanni Range Road. A further 35 miles of access road was completed under an agreement with the Federal Government and the Canada Tungsten Mining Corporation Ltd., from the end of the Nahanni Range Road to the Canada Tungsten Mining Corporation property and townsite at Tungsten, N.W.T., with the Branch carrying out periodic inspections of the progress of this work. Grading continued from Ross River southeasterly, with 44.5 miles being completed, leaving 5.5 miles of new construction required to complete this contract. In February and March, 24 miles of right-of-way clearing on the Watson Lake—Ross River Road was carried out by day labour under the supervision of the Indian Affairs Branch, with Development Engineering being responsible for the engineering aspects of the project, including the construction of an access tote road.

On the Flat Creek—Eagle Plain road, a contract was awarded for the completion of grading and drainage from Mile 0—78, and this work was completed on schedule.

A start was made on the location survey of the Ross River—Carmacks Road, commencing at the Ross River end. A tote road was constructed in connection with the survey to provide access, and in order to cross the Lapie River it was necessary for the survey crew to erect a 130' double single Bailey Bridge, the actual assembling and launching being carried out in a little over twelve hours. A total of 46 miles of surveyed line was completed, with five miles of this line being located to coincide as closely as possible on the ground with a route selected by Hunting Survey Corporation based on low level aerial photographs. Earthwork quantities for this portion of the projected route have been calculated by photogrammetric methods, and following construction to the same line and grade, a comparison of the actual and the calculated quantities will be made.

During the year, two site surveys were completed by the Branch for the District Architect, Vancouver, as well as a number of inspections of completed buildings and the drilling of two test wells.

Total expenditures in the Yukon Territory amounted to \$3.4 millions.

Northwest Territories

During 1962-63, six contracts carried over from the previous year were completed and three new contracts were awarded.

A steel truss bridge over the Yellowknife River was completed. The Bridge is located on the highway that will extend to MacKay Lake and is approximately 6 miles northeast from the Yellowknife Townsite. This highway has now been named the Ingraham Trail in recognition of a local inhabitant. A contract was awarded for the erection of a bridge over the West Channel at Hay River—this a combination highway/railway (C.N.R.) bridge with independent superstructures for each traffic, spanning common piers and abutments. The piers and abutments were completed during the year.

A contract was awarded to complete the grading of 77 miles of the MacKenzie Highway between the Alberta Boundary and Enterprise; and a contract for the surface gravelling of 51 miles of this section was awarded.

Various surveys were carried out during the year, the most significant of which was for the location of a proposed highway between Ft. Providence and Ft. Simpson.

In the category of "Special Projects" the Branch undertook the survey, layout and construction of a Seismic Array in the Yellowknife area for the Department of Mines and Technical Surveys. There are relatively few of these Arrays in the world, and this particular one is of major significance and will be augmented during the next fiscal year. It is located in an ideal area to record earthquakes from the west coast, Japan, West Indies and elsewhere, 2,000 miles or more away. Its cost of upward of \$100,000 is being shared by Britain, which is providing the equipment, and Canada, which is responsible for building the facilities and will, in time, take over complete operation.

Total Branch expenditures in the Northwest Territories during 1962-63 were approximately \$1.8 millions.

Wood Buffalo Park

In Canada's largest National Park construction continued on a development road extending for some 38 miles from Pine Lake to Peace Point. This road is planned to extend to the west boundary of the Park, an overall distance of 111 miles.

Miscellaneous

The Macdonald-Cartier Bridge project between Ottawa, Ontario and Hull, Quebec advanced into the construction stage during the year. The bridge contract amounting to \$8,490,000.00 was awarded to Dufresne Engineering Company

Limited, Montreal. The construction and consultants' supervision costs are being shared equally by the Federal, Province of Quebec and Province of Ontario Governments. Total cost of the bridge project is expected to be \$9.4 millions. In addition, the Provinces are responsible for the construction and cost of the bridge approaches. Work commenced at the bridge site on February 18, 1963 and the pier and abutments are scheduled for completion by January, 1964. It is anticipated that the bridge will be completed and opened to traffic in 1965.

Testing Laboratories

During 1962-63 the Testing Laboratories provided testing and consultant services to the various departments of government. In addition to the established services offered by the Chemical, Physical and Soils Group, new fields were entered and programs established. Seat belt testing was undertaken on behalf of the combined C.S.A. and C.GSB Committee, sheet film testing on behalf of the Department of Public Printing and Stationery and a program established for the qualification of aluminum windows and builders hardware. Development work in connection with the testing of filters for jet fuel for the R.C.A.F. was completed in readiness for testing operations by this Division which will be underway during 1963-64.

BUILDING CONSTRUCTION BRANCH

Contracts for new construction, including additions and extensive alterations and improvements to 186 Federal Buildings and other premises occupied by Government Departments were awarded during the fiscal year 1962-63. Work was still in progress on 141 projects at the end of the year.

The construction program in progress throughout the country included the following main projects:

St. John's, Newfoundland, Shop, Stores and Administration Building. (Transport)

A four-storey building without basement—the two first floors measuring 45 feet by 500 feet and the remaining two storeys measuring 42 feet by 212 feet, of reinforced concrete framing with brick veneer on the exterior walls. Total floor area of 40,308 square feet.

Sydney Mines, Nova Scotia, Federal Building.

A two-storey building 62 feet by 57 feet of combined structural steel and reinforced concrete framing with masonry exterior walls covered with brick and stone trim. Total floor area of 7,068 square feet.

Sackville, New Brunswick, Federal Building.

A two-storey building with full basement 110 feet by 56 feet, of combined structural steel and reinforced concrete framing with masonry exterior walls covered with brick veneer and porcelain enamel panels. Total floor area of 21,404 square feet.

Fort George, Quebec, Anglican Hostel and Addition to School. (C & I)

A two-storey building without basement, 106 feet by 58 feet, with two side wings 41 feet by 136 feet, an attached one-storey boiler room wing 32 feet by 32 feet and a one-storey Chapel building 33 feet by 58 feet. The addition to the school includes a one-storey building 36 feet by 59 feet—the whole with steel framing and wood exterior walls covered with cedar shingles and asbestos panels respectively. Total floor area of 30,475 square feet.

Quebec, P.Q. Federal Building—(U.I.C.)

A three-storey building with full basement, 102 feet by 172 feet of combined structural steel and reinforced concrete framing with masonry exterior walls covered with brick veneer and stone trim. Total floor area of 52,632 square feet.

Ottawa, Ontario, Radiation Protection Building.

A one-storey building with full basement with one main section 190 feet by 50 feet and two side wings 60 feet by 45 feet respectively of combined structural steel and reinforced concrete framing with masonry exterior walls covered with brick veneer. Total floor area of 14,900 square feet.

Ottawa, Ontario, Addition to R.C.M.P. Headquarters Building.

A five-storey main section with basement 200 feet by 45 feet, a two-storey wing with basement 315 feet by 45 feet, a one-storey wing with basement 130 feet by 39 feet and two attached three-storey wings each 122 feet by 20 feet; the whole of reinforced concrete framing and masonry exterior walls covered with stone veneer. Total floor area of 93,060 square feet.

Ottawa, Ontario, Administration Building for N.R. Council.

A three-storey main section with partial basement 166 feet by 42 feet, a three-storey side wing 50 feet by 62 feet, a three-storey rear wing 48 feet by 162 feet and a three-storey front wing 18 feet by 48 feet, the whole with combined structural and reinforced concrete framing with masonry exterior walls covered with precast stone panels. Total floor area of 82,000 square feet.

Brockville, Ontario, Federal Building.

An "L" shaped building with one storey 149 feet by 75 feet with partial basement and a part second storey with penthouse, with a reinforced concrete framing with masonry exterior walls covered with brick and rubble stone veneers. Total floor area of 33,983 square feet.

Kitchener, Ontario, Postal Terminal Building. (Post Office)

A rectangular two-storey building 92 feet by 135 feet with full basement and penthouse 22 feet by 69 feet with a reinforced concrete framing and masonry exterior walls covered with brick veneer. Total floor area of 38,125 square feet.

Toronto, Ontario, Federal Building. (U.I.C.)

A six-storey building with full basement, the first two storeys measuring 117 feet by 225 feet and the remaining four storeys measuring 67 feet by 225 feet with combined structural steel and reinforced concrete framing with masonry exterior walls covered with stone and brick veneers respectively. Total floor area of 112,950 square feet.

Winnipeg, Manitoba, Letter Carrier Depot "R". (Post Office)

A one-storey building 57 feet by 74 feet with partial basement with a combined structural and reinforced concrete framing with masonry exterior walls covered with brick veneer and precast concrete panels respectively. Total floor area of 5,340 square feet.

Swift Current, Saskatchewan, Research Laboratory. (Agriculture)

A three-storey main section 65 feet by 112 feet with full basement, a three-storey administration wing 41 feet by 210 feet and one-storey headerhouse 41 feet by 210 feet, the whole with a combined structural steel and reinforced concrete framing with masonry exterior walls covered with precast concrete panels and face brick respectively. Total floor area of 56,280 square feet.

High Prairie, Alberta, Federal Building.

A two-storey building with full basement 62 feet by 55 feet with structural steel framing and solid masonry exterior walls covered with face brick and stone trim. Total floor area of 6,820 square feet.

Vancouver, British Columbia, Federal Building (Trade & Commerce)

A two-storey office wing with full basement 65 feet by 61 feet and a one-storey calibration wing with full basement 44 feet by 87 feet, the whole with a combined structural steel and reinforced concrete framing with masonry exterior walls covered with precast concrete panels and face brick respectively. Total floor area of 11,758 square feet.

Kamloops, British Columbia, Federal Building.

An "L" shaped two-storey building, one section 121 feet by 66 feet and the other section 101 feet by 51 feet, with full basement, with a reinforced concrete framing and masonry exterior walls covered with face brick and precast concrete panels respectively. Total floor area of 26,274 square feet.

Frobisher Bay, Northwest Territories, Development Phase 1.

The contract includes the construction of a new Hospital, a Warehouse Building and a Seismograph Vault Building together with extensive municipal services. A two-storey hospital building without basement with a main section 43 feet by 246 feet, a front wing 61 feet by 60 feet and a rear wing 30 feet by 61 feet of wood construction throughout with wood siding on the exterior walls.

A one-storey warehouse building without basement 100 feet by 100 feet with reinforced concrete framing and masonry exterior walls.

An underground seismograph vault building 21 feet by 50 feet with reinforced concrete framing and exterior walls. Total Floor Area of 37,696 square feet.

Good progress was made during the year on the following large projects, contracts for which were awarded during the previous fiscal year:

St. John's, Newfoundland.....	Veterans Wing Pavilion
Kentville, Nova Scotia.....	Federal Building
La Tuque, Quebec.....	Indian Residential School
Verdun, Quebec.....	Federal Building (U.I.C.)
St. Hyacinthe, Quebec.....	Federal Building
Ottawa, Ontario.....	Parliament Buildings—Additions & Alterations—West Block.
Ottawa, Ontario.....	Administration Building for National Health & Welfare
Ottawa, Ontario.....	Computer Centre, Tunney's Pasture
Etobicoke, Ontario.....	Post Office Building
Ohswegen, Ontario.....	School and Gymnasium
Kemptville, Ontario.....	Welfare Service Centre
Sandy Bay, Manitoba.....	Eight Classroom School
Jack River, Manitoba.....	Four Classroom School
North Battleford, Saskatchewan.....	Administration Bldg. R.C.M.P.
Beauval, Saskatchewan.....	Six Classroom School
Brocket, Alberta.....	Six Classroom School & Triplex
Prince Rupert, British Columbia.....	Federal Building
Kamloops, British Columbia.....	Dormitory & Cafeteria Bldg.

The program for the construction of accommodation for the Department of Justice (Penitentiaries) is increasing in accordance with that Department's urgent demand for new security institutions throughout the country. The following are the main projects now under construction together with those projects required in the immediate future for which planning is now in progress.

Springhill, Nova Scotia

A young offenders institution to accommodate 450 inmates including 16 buildings for inmate housing, training and treatment together with an administration and stores buildings, a boiler plant and auxiliary facilities.

Gagetown, New Brunswick

Blue Mountain Correctional Work Range including a new minimum security institution for pre-release inmates comprising a self-contained complex of frame and prefabricated buildings with water supply and all services.

Cowansville, Quebec

A medium security institution to accommodate 450 inmates including 16 buildings for inmate housing, training and treatment together with a guard house, administration building, stores building, and boiler plant with auxiliary facilities.

Ste. Anne des Plaines, Quebec

A complex structure to house, train, exercise and treat up to 160 inmates in controlled areas including the erection of a temporary heating plant.

The complete re-development of the existing National Defence site and the erection of a number of buildings to provide a maximum security institution for approximately 450 inmates including a boiler plant and auxiliary services (Special Detention Unit).

Montreal, Quebec—St. Vincent de Paul Penitentiary

Demolition and clearing of area and the rehabilitation of slightly damaged buildings after the riot. Essential repairs to services and rehabilitation of more severely damaged buildings, including cell blocks. Erection of shells only to the new Officers' Mess, Psychiatric Building, Shops' Building and Pre-employment Building. Repairs to the Chapel, modification to provide psychiatric cell wings and completion of interior and all services to the four new buildings. Reconstruction of the steel framed shops' building after the riot and new fence at controlled exercise and games yard. New guard control point in dome, provision of slop single rooms for each cell range, new water intake, improvements to services to the pumping station and numerous other corrective works.

Ontario

A medium security institution to accommodate 450 inmates including 16 buildings for inmate housing, training and treatment together with an administration building, a stores building and boiler plant with auxiliary facilities.

Kingston, Ontario

Removal and reconstruction of the old perimeter wall including an additional guard tower and boundary fencing. A new correctional Staff College to replace the existing old building which was found inadequate: this new three-storey building will accommodate staff and officers in training with lecture and discussion rooms, library and dining facilities.

It is proposed to construct a Correctional Building at Collin's Bay Penitentiary which will include a new Reception Unit, and extension to the Exercise Hall, new Control Centre and improved Officers' facilities.

It is proposed to construct a new paint shop building and warehouse at Joyceville Penitentiary to provide adequate facilities for the Industries Division of the Institution. A new water intake and new service main to provide adequate water supply are to be provided for this Institution.

Stony Mountain, Manitoba (Penitentiary)

The heating boilers of this institution are being converted for the use of oil in place of solid fuel. Extensive improvements to the water supply are contemplated including the construction of a new pumphouse with auxiliary services.

Drumheller, Alberta

A young offenders institution to accommodate 450 inmates including 16 buildings for inmate housing, training and treatment together with an administration building, stores building, boiler plant and auxiliary facilities.

New Westminster, British Columbia (Penitentiary)

New segregation area including the construction of an additional floor to provide 44 cells in a new segregation unit.

Agassiz, British Columbia (Mountain Prison) (Doukhobors)

Erection of perimeter fence, and completion of electrical and plumbing work previously undertaken.

William Head, British Columbia (Minimum Security)

The policy of replacing the existing obsolete buildings will be carried out and a new housing unit will be constructed to accommodate 132 inmates in single cells with common toilet facilities and day rooms. Such unit will eventually house 176 inmates at a later date.

Matsqui, British Columbia

A medium security institution to accommodate 149 female and 362 male inmates who are drug addicts. Within the two separate secure areas will be erected 14 buildings for inmate housing, training and treatment together with an administration and stores buildings.

Contracts were awarded for 58 Post Office Buildings throughout the country each costing not over \$25,000.00, most contracts being awarded during the fall of 1962 in order to stimulate winter employment.

Details of these works will be found in the Building Construction Section of the Report Page 39.

HARBOURS AND RIVERS ENGINEERING BRANCH

Gerald Millar, Chief Engineer

Location	Date Work Began	Description
NEWFOUNDLAND		
Aspen Cove.....	June 1962	Extension to Breakwater. Completed.
Bonavista.....	Jan. 1962	Construction of Slipway. Completed.
Bonavista.....	Aug. 1962	Harbour Improvements. Completed.
Bridgeport.....	Aug. 1962	Wharf Construction. Completed.
Burgeo.....	Sept. 1961	Reconstruction of Wharf. Completed.
Burnt Island.....	May 1962	Reconstruction of Wharf. Completed.
Calvert.....	June 1962	Harbour Improvements. In progress.
Catalina.....	Aug. 1962	Dredging of Channel and Basin. In progress.
Channel.....	Nov. 1962	Wharf Repairs and Extension. In progress.
Codroy.....	Oct. 1961	Repairs and strengthening of Breakwater. Completed.
Deer Harbour.....	Aug. 1962	Wharf Reconstruction. In progress.
Doating Cove.....	Sept. 1962	Wharf Repairs. Completed.
Harbour Grace.....	June 1962	Harbour Improvements. In progress.
Isle aux Morts.....	Aug. 1961	Construction of Wharf. Completed.
L'Anse Au Clair.....	July 1962	Wharf Extension. Completed.
Long Pond (Manuels).....	July 1962	Dredging an area in front of the Government Wharf. In progress.
Lewisporte.....	Oct. 1960	Construction of wharf extension and shed for Department of Transport. In progress.
Lewisporte.....	Oct. 1962	Wharf Construction. In progress.
Nain.....	July 1962	Wharf Reconstruction and Extension. Completed.
Old Perlican.....	May 1962	Wharf Reconstruction and Extension. Completed.
Portugal Cove South.....	Oct. 1961	Construction for Community Stage for Department of Fisheries. Completed.
Princeton.....	Aug. 1962	Wharf Construction. Completed.
Pushthrough.....	Aug. 1962	Wharf Reconstruction. Completed.
Red Bay.....	July 1962	Wharf Repairs and Extension. Completed.
Robert's Arm.....	Aug. 1962	Wharf Reconstruction. Completed.
Rocky Harbour.....	July 1962	Wharf Extension. Completed.
St. John's.....	Jan. 1960	Construction of main terminal wharf. Completed.
St. John's.....	Mar. 1961	Construction of north shore roadway. Completed.
St. John's.....	July 1961	Construction of two transit sheds. Completed.
St. John's.....	Mar. 1962	Construction of two small freight sheds. Completed.
St. John's.....	Nov. 1962	Road Work. In progress.
St. John's.....	Aug. 1962	Services Contract. In progress.
St. John's.....	Oct. 1962	South Side Road. In progress.
Ship Cove (Port de Grave).....	May 1962	Wharf Reconstruction and Extension. In progress.
South Dildo.....	Aug. 1961	Acquisition and extension of wharf. Completed.
Twillingate.....	July 1962	Extension to Breakwater. Completed.
Upper Island Cove.....	Aug. 1962	Wharf Reconstruction. Completed.
Wesleyville.....	June 1961	Reconstruction of half of existing structure. Completed.
West Ste. Modeste.....	Oct. 1962	Construction of a Community Stage for the Department of Fisheries. Completed.
PRINCE EDWARD ISLAND		
Annandale.....	Aug. 1962	Harbour Repairs (Wharf). Completed.
Bay Fortune.....	July 1962	North Wharf Repairs. Completed.
Borden.....	Aug. 1962	Reddredging a portion of the existing turning basin and also enlarging of the basin at the ferry terminal. In progress.
Charlottetown.....	Nov. 1961	Construction of Marine Agency Wharf. In progress.
Egmont Bay.....	June 1962	Construction of Boat Harbour. Completed.
Graham's Pond.....	July 1962	Harbour Improvements & Landing Extension and Deck Repairs. Completed.
Jude's Point.....	July 1962	Wharf Improvements. Completed.
Launching Pond.....	Sept. 1962	Breakwater Extension. Completed.
Miminegash.....	June 1962	Harbour Improvements—Replacing 436 foot section of existing plank deck. Completed.
North Lake.....	June 1962	Construction of Landing Extension. Completed.
North Rustico.....	Sept. 1962	Harbour Improvements—Landing Extension. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date Work Began	Description
PRINCE EDWARD ISLAND (Concluded)		
Souris.....	June 1961	Wharf Acquisition and reconstruction. Completed.
Summerside.....	Dec. 1962	Harbour Improvements—Construction of a steel sheet pile wall and timber slip. In progress.
Wood Islands.....	Sept. 1960	Demolition, dredging and construction of West Breakwater. Completed.
Wood Islands.....	July 1962	Reconstruction of East Breakwater. In progress.
NOVA SCOTIA		
Abbotts Harbour.....	Dec. 1962	Wharf Repairs. In progress.
Alder Point.....	Nov. 1961	Wharf construction. Completed.
Ballantynes Cove.....	Aug. 1962	Wharf Extension. In progress.
Battery Point.....	Mar. 1963	Breakwater Reconstruction. In progress.
Bay St. Lawrence.....	Nov. 1961	Dredging and Shore Protection. Completed.
Brooklyn.....	June 1962	Dredging an irregular shaped area adjacent to Bowaters Mersey Paper Company Wharf and the Government Breakwater. Completed.
Camp Cove.....	Aug. 1962	Wharf Extension. Completed.
Cape John.....	June 1962	Breakwater Extension. Completed.
Chester Ironbound.....	June 1962	Reconstruction of inner 250 ft. breakwater. Completed.
Comeauville.....	June 1961	Repairs to isolated breakwater and joining to main breakwater. Completed.
Dennis Point.....	June 1962	Dredging alongside of wharf. Completed.
Dingwall.....	July 1960	Breakwater construction and dredging. Completed.
Finlay Point.....	Dec. 1961	Retaining Wall and Dredging. Completed.
Fourchu.....	June 1962	Dredging of Entrance Channel and Mooring Basin. Completed.
Halifax.....	April 1962	Wharf Extension. Extension to D.O.T. Marine Agency Wharf Part "A". Completed.
Halifax.....	Feb. 1963	Repairs to Jetty, H.M.C. Dockyard. In progress.
Halifax.....	Mar. 1963	Extension to D.O.T. Marine Agency Wharf Part "B". In progress.
John's Island.....	Sept. 1961	Reconstruction of stem portion of wharf. Completed.
Lahave.....	Feb. 1962	Wharf reconstruction and extension. Completed.
Little Judique Ponds.....	Sept. 1962	Reconstruction of 300 ft. portion of stem of breakwater. In progress.
Lower Jordan Bay.....	Sept. 1962	Wharf Construction. Completed.
Lunenburg.....	Mar. 1963	Wharf Construction. In progress.
Moose Harbour.....	June 1962	Breakwater. Completed.
Pictou.....	May 1961	Reconstruction of Pier "C". Completed.
Pinkneys Point.....	Oct. 1962	Harbour Improvements. In progress.
Point Edward (Sydney).....	June 1962	Dredging a triangular shaped area between the quay wall and main Jetty. Completed.
Point Edward (Sydney).....	Nov. 1962	Repairs to main Jetty. In progress.
Point Edward (Sydney).....	Jan. 1963	Reconstruction of Quay Wall. In progress.
Poirierville.....	Jan. 1962	Portion of ell of wharf reconstructed. Completed.
Port Bickerton East.....	Nov. 1961	Wharf reconstruction. Completed.
Salmon River.....	Oct. 1962	Wharf Repairs. In progress.
Sandford.....	Aug. 1962	Breakwater Improvements. In progress.
Saulnierville.....	July 1962	Wharf Repairs. Completed.
Stoney Island.....	July 1962	Breakwater. Completed.
Trout Cove.....	Dec. 1962	Wharf Reconstruction. In progress.
Walton.....	Oct. 1962	Wharf Reconstruction. In progress.
Yarmouth.....	Nov. 1961	Construction of new wharf. In progress.
NEW BRUNSWICK		
Alma.....	Sept. 1962	Repairs to east and west breakwaters. Completed.
Back Bay.....	May 1962	Extension of rubble mound breakwater. Completed.
Bathurst.....	May 1962	Dredging of main channel and turning basin. Completed.
Bathurst.....	June 1962	Paving wharf surface and roadway approach. Completed.
Blue Cove.....	Aug. 1962	Construction of cribwork pierhead extension. Completed.
Boyne's Cove.....	Mar. 1962	Construction of pilework wharf. Completed.
Cape Tormentine.....	Mar. 1963	Wharf Repairs. In progress.
Cape Tormentine.....	June 1962	Dredging harbour for Department of Transport to accommodate C.N.R. ferries. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date Work Began	Description
<i>NEW BRUNSWICK—Concluded</i>		
Cocagne Cape.....	June 1962	Repair and extending the wharf in cribwork. Completed.
Dalhousie.....	June 1962	Dredging berths at the Public Wharf and the eastern side of the International Paper Co. Wharf. Completed.
Dredging Plant.....	April 1961	Construction of 8' pipeline Dredge No. 30. Completed.
Dredging Plant.....	Mar. 1962	Construction of two 300 c.y. dump scows for P.E.I. and Nfld. Completed.
Haggerty's Cove.....	June 1962	Dredging mooring basin. Completed.
Lameque.....	May 1962	Removal of portion of south approach and construction of steel sheet pile extension of north approach. Completed.
Robichaud.....	Jan. 1962	Wharf Repairs. In progress.
Saint John (Courtenay Bay)....	June 1962	Dredging Courtenay Bay Channel and Turning Basin. Completed.
Saint John (Negro Point).....	June 1962	Extending rubble mound breakwater to meet Partridge Island. Completed.
Seeley Cove.....	Aug. 1962	Construction of pilework wharf. In progress.
Shediac.....	Aug. 1961	Construction of new wharf consisting of gravel fill approach and cribwork block and span pierhead. Completed.
Shippegan.....	Sept. 1961	Reconstruction of Deep Water wharf by driving steel sheet piling around perimeter and backfilling with sand stone. Completed.
<i>QUEBEC</i>		
Anse-aux-Basques.....	Dec. 1961	Construction of Pilotage Wharf for the Department of Transport. Completed.
Anse-aux-Basques.....	Oct. 1962	Installation of Water Supply System on Pilotage Wharf for the Dept. of Transport. In progress.
Baie-Comeau.....	April 1962	Harbour Improvements consisting of Breakwater, Wharf construction as an extension 1,000 feet long to existing wharf. Completed.
Baie-Comeau.....	Dec. 1962	Wharf repairs. Completed.
Barachois de Malbaie.....	Feb. 1962	Landing extension. Completed.
Batiscan.....	June 1962	Dredging of an access channel to public wharf. Completed.
Brion Island.....	Aug. 1962	Construction of landing. Completed.
Cap aux Meules.....	Aug. 1962	Breakwater repairs & enlargement. Completed.
Cap Chat.....	July 1962	Demolition of training pier and construction of retaining wall. Completed.
Cap de la Madeleine (Ste-Marthe).....	Feb. 1962	Construction of retaining wall. Completed.
Cap de la Madeleine (Ste-Marthe).....	June 1962	Construction of a retaining wall. Completed.
Cap-Rouge.....	June 1962	Protection Wall. Completed.
Champlain.....	April 1961	Retaining Wall. Completed.
Champlain.....	Feb. 1962	Construction of retaining wall. In progress.
Champlain.....	Sept. 1962	Construction of a retaining wall. In progress.
Contrecoeur.....	Feb. 1962	Construction of retaining walls. Three projects. Completed.
Deschailions.....	Sept. 1962	Wharf Improvements. In progress.
Deschailions.....	June 1962	Construction of protection walls. Completed.
Etang des Caps.....	Aug. 1961	Fishing Harbour. Completed.
Gascons (Anse a Mercier).....	June 1962	Wharf repairs. In progress.
Godbout.....	May 1962	Dredging of Basin around wharf. Completed.
Grande Riviere.....	July 1962	Construction of cribwork landing and steel pile wall. Completed.
Grande Riviere.....	Aug. 1962	Construction of steel sheet pile wall in harbour. Completed.
Grande Vallee.....	Nov. 1961	Dredging entrance channel to fishing harbour. Completed.
Grande Vallee.....	Dec. 1962	Harbour improvements. Completed.
Havre Aubert.....	June 1961	Dredging a channel. Completed.
La Petite Riviere St. Francois..	June 1962	Wharf Extension. Completed.
Les Eboulements.....	May 1962	Wharf Improvements. In progress.
Levis.....	May 1962	Wharf Repairs. Completed.
Magpie.....	May 1962	Wharf Construction. Completed.
Matane.....	July 1961	Harbour improvements (Ferry Terminal). In progress.
Matane.....	Oct. 1962	East Breakwater extension. In progress.
Matane.....	June 1962	Dredging Entrance Channel and areas between the East and West Breakwaters. Completed.
Mont-Louis (Gaspé Copper).....	Oct. 1962	Placing of armour stone. Completed.
Notre Dame du Nord.....	Jan. 1962	Protection works. Completed.
Perce.....	Oct. 1962	Construction of pile bent landing. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date Work Began	Description
<i>QUEBEC—Concluded</i>		
Pointe-au-Pic.....	May 1962	Shed Improvements. Completed.
Pointe Claire.....	Aug. 1962	Wharf Repairs. Completed.
Pointneuf.....	May 1962	Wharf Improvements. In progress.
Riviere-au-Tonnerre.....	July 1961	Dredging near main wharf and in channel leading to landing pier. Completed.
Ste. Anne de Beaupre.....	Sept. 1962	Wharf Repairs. Completed.
St. Antoine de Tilly.....	Oct. 1962	Concrete Retaining Wall. Completed.
St. Augustin (Plage St. Laurent).....	June 1962	Concrete Protection Wall. Completed.
St. Augustin.....	Sept. 1962	Landing Pier. Completed.
St. Charles-sur-Richelieu.....	July 1962	Construction of a retaining wall. Completed.
St. Denis-sur-Richelieu.....	Oct. 1962	Construction of a retaining wall. In progress.
St. Francois, I.O.....	July 1962	Protection Works. Completed.
St. Jean, I.O.....	Sept. 1962	Concrete Retaining Wall. Completed.
St. Joachim-de-Tourelle.....	June 1962	General Wharf Repairs. Completed.
St. Laurent, I.O.....	Sept. 1962	Concrete Retaining Wall. Completed.
Ste. Petronille, I.O.....	June 1962	Protection Works. Completed.
Ste. Rose-du-Nord.....	May 1962	Wharf Repairs and Improvements. Completed.
Sept Iles.....	May 1962	Concrete Wall and Stone on Mgr. Blanche Street Wharf. Completed.
Sept Iles.....	Oct. 1962	Repairs to Shed and Wharf. Completed.
Sept. Iles.....	July 1962	Repairs to Retaining Wall. Completed.
Sillery (Anse Victoria).....	Aug. 1962	Concrete Protection Wall. Completed.
Sorel.....	May 1962	Dredging in harbour. Completed.
Trois Pistoles.....	July 1962	Construction of Concrete Floor on Wharf. Completed.
Varennas.....	June 1962	Construction of a retaining wall. Completed.
Vercheres.....	Mar. 1962	Construction of retaining wall. Completed.
Vercheres.....	May 1962	Construction of a retaining wall. Completed.
<i>ONTARIO</i>		
Amherstburg.....	Aug. 1962	Construction of retaining wall. Completed.
Bayfield.....	Aug. 1962	Repairs to South Pier. In progress.
Belle River.....	Aug. 1961	Reconstruction of training wall. Completed.
Belle River.....	Sept. 1962	Reconstruction of training wall. In progress.
Burlington Channel.....	Aug. 1962	Removal of centre pier. Completed.
Cobourg.....	July 1962	Redredging entrance channel and north-east corner of outer harbour. Completed.
Collingwood.....	Nov. 1961	Construction of four Mooring Stations at former C.N.R. wharf. Completed.
Cornwall.....	Aug. 1961	Harbour development. Completed.
Cornwall.....	Aug. 1962	Dredging of turning basin. Completed.
Dredging Plant.....	April 1961	Construction and delivery of an eight inch Pipeline Dredge for New Brunswick. Completed.
Dredging Plant.....	July 1962	Construction and delivery of Survey Launch. Completed.
Goderich.....	June 1962	Dredging and redredging in Inner Harbour and Outer Entrance Channel. In progress.
Hamilton.....	June 1962	Construction of Catharine Street wharf extension—Stage 1. Completed.
Hawkestone.....	July 1962	Repairs to wharf. Completed.
Innisfil Park.....	Mar. 1962	Reconstruction of timber wharf with steel sheet piling and concrete deck. Completed.
Kincardine.....	Jan. 1962	Repairs to wharf. Completed.
Lakehead.....	Jan. 1960	Harbour Terminal Construction—Structures, Services, and Finishes. Stage 5. Completed.
Lakehead.....	Sept. 1961	Harbour Terminal Construction—Construction of Terminal Entrance Building. Completed.
Lakehead.....	Feb. 1962	Harbour Terminal Construction—Cargo Ramps, Vehicle Ramp and Travelling Hoist of Batteries. Stage 9. Completed.
Lakehead.....	Mar. 1962	Harbour Terminal Construction—Railway Tracks. Stage 7. Completed.
Lakehead.....	May 1962	Dredging irregular shaped area in Kaministiquia River, Fort William. Completed.
Lakehead.....	June 1962	Dredging irregular and rectangular shaped areas in Kaministiquia and Mission Rivers, Fort William. Completed.
Lakehead.....	June 1962	Dredging in Main Harbour Centre, Port Arthur. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Continued

Location	Date Work Began	Description
<i>ONTARIO—Continued</i>		
Lakehead.....	June 1962	Dredging shoal area "D" in the vicinity of the Mission River Entrance Channel, Fort William. Completed.
Leamington.....	Dec. 1961	Construction of Ferry Landing. Completed.
Leamington.....	Dec. 1962	Wharf Widening—West Side. In progress.
Leamington.....	June 1962	Dredging adjacent to Government Warehouse. Completed.
Midland.....	Feb. 1961	Reconstruction of timber floats using steel pontoons and frames with timber decking. Completed.
Millhaven.....	Feb. 1963	Wharf Reconstruction. In progress.
North Bay.....	Oct. 1961	Construction of small boat facilities. Completed.
Orillia.....	Aug. 1962	Reconstruction of wharf. Completed.
Oshawa.....	Aug. 1961	Construction of steel pile bent and concrete decked wharf. Completed.
Oshawa.....	June 1962	Dredging Areas "A", "B" and "C". Completed.
Owen Sound.....	Feb. 1962	Reconstruction of West Entrance Pier with steel sheet piling. Completed.
Pelee Island.....	Oct. 1961	Repairs to West Wharf. Completed.
Pelee Island.....	Oct. 1962	Construction of Breakwater. In progress.
Port Arthur.....	June 1960	Dredging in Main Entrance Channel and Main Harbour Centre. Completed.
Port Burwell.....	May 1962	Redredging of Areas in Outer and Inner Approach Channels. Completed.
Port Colborne.....	Oct. 1961	Repairs to East Breakwater. Completed.
Port Credit.....	Jan. 1961	Improvements and extension to main wharf, construction of a breakwater and dredging turning area at outer end of wharf. Completed.
Port Credit.....	June 1962	Construction of warehouse and office building. In progress.
Port Credit.....	Jan. 1962	Dredging and construction of wharf extension and breakwater. Completed.
Port Dover.....	Oct. 1961	Repairs to Pier. Completed.
Port Hope.....	June 1962	Dredging Areas 1, 2 and 3. Completed.
Port Stanley.....	May 1961	Redredging in Approach Channel, Outer Harbour, Inner Harbour and Turning Basin. Completed.
Rondeau (Erieau).....	July 1961	Repairs to Breakwater. Completed.
Sault Ste. Marie.....	July 1962	Redredging entire harbour. In progress.
Sarnia.....	July 1962	Dredging area off Bay Point. Completed.
Sarnia.....	Sept. 1962	Wharf Extension. In progress.
Sombra.....	Aug. 1962	Reconstruction Wharf Approach. Completed.
Toronto.....	May 1961	Dredging Area "H". Completed.
Toronto.....	Aug. 1961	Supervision and Inspection of Ship Channel Extension Contract by Consultants. Completed.
Toronto.....	Sept. 1961	Extension to Ship Channel wharfage facilities. Completed.
Toronto.....	April 1962	Dredging adjacent to E.L. Cousins Dock. Completed.
Toronto.....	April 1962	Repairs to Seawall Deck at Toronto Island Airport for Department of Transport. Completed.
Toronto.....	May 1962	Dredging north-east corner of Toronto Harbour. Completed.
Toronto.....	May 1962	Redredging Areas "A" and "B" at Eastern Entrance to Toronto Harbour. Completed.
Toronto.....	Sept. 1962	Dredging ship channel extension. Completed.
Wheatley.....	Oct. 1961	Reconstruction of West Training Wall. Completed.
Wheatley.....	Dec. 1961	Reconstruction of Wall in Surge Basin. Completed.
Wheatley.....	Oct. 1962	Reconstruction of Wall-West Side. In progress.
Wolfe Island Cut.....	Mar. 1961	Dredging at the easterly end of Wolfe Island. Completed.
<i>MANITOBA</i>		
Berens River.....	Oct. 1962	Construction of Wharf. Completed.
Dredging Plant.....	Mar. 1962	Repairs to Hull and Deck of Dredge No. 201. Completed.
Selkirk.....	Nov. 1961	Wharf Repairs. Completed.
<i>ALBERTA</i>		
Arctic Red River, NWT.....	Dec. 1961	Installation of Floating Gangplank. Completed.
Cambridge Bay, NWT.....	Aug. 1962	Construction of a steel pile wharf. Completed.
Dredging Plant.....	Jan. 1963	Supply of House Barge and Survey Launch for Athabasca River Surveys. In progress.
Fort Good Hope, NWT.....	Dec. 1961	Installation of floating wharf. Completed.

HARBOURS AND RIVERS ENGINEERING BRANCH—Concluded

Location	Date Work Began	Description
<i>ALBERTA—Continued</i>		
Fort Norman, NWT.....	Dec. 1961	Installation of floating wharf. Completed.
Fort Resolution, NWT.....	Oct. 1961	Wharf Reconstruction. Completed.
Norman Wells, NWT.....	July 1962	Construction of a steel sheet pile wharf. Completed.
Reindeer Station, NWT.....	Dec. 1961	Installation of floating gangplank. Completed.
Wrigley Airport, NWT.....	Dec. 1961	Installation of floating gangplank. Completed.
<i>BRITISH COLUMBIA</i>		
Bella Coola.....	May 1962	Harbour Improvements. Completed.
Dredging Plant.....	June 1962	Annual Overhaul to Dredge 322. Completed.
Fraser River (Channels 1, 2 & 3)	Aug. 1962	Dredging in Fraser River at Steveston and New Westminster. Completed.
Fraser River (Sumas to Hope).	Aug. 1962	Maintenance dredging to remove gravel bars in river. Completed.
Ganges.....	June 1962	Harbour Improvements. Completed.
Halfmoon Bay.....	June 1962	Wharf Construction. Completed.
Harrison Lake.....	June 1962	Driftwood Removal. Completed.
McIvors Landing.....	May 1962	Harbour Improvements. Completed.
New Westminster (Railway Bridge).....	Nov. 1962	Swing Span Repairs. Completed.
Port Alberni.....	Jan. 1963	Assembly Wharf Repairs. Completed.
Port Hardy.....	Sept. 1962	Wharf Improvements. Completed.
Port Simpson.....	Mar. 1962	Float construction. Completed.
Prince Rupert (Fairview Bay).....	Nov. 1962	Float Repairs. Completed.
Prince Rupert (Fairview Bay).....	June 1962	Ferry Landing. Completed.
Prince Rupert (Fairview Bay).....	June 1962	Compound Area Fill. Completed.
Prince Rupert (Rushbrook).....	July 1962	Breakwater Renewal. Completed.
Shoal Harbour.....	Jan. 1963	Boat Harbour. In progress.
Tahsis.....	Feb. 1962	Breakwater for seaplane landing. Completed.
Tofino.....	Aug. 1962	Float Renewal. Completed.
Tofino.....	July 1962	Wharf Repairs. Completed.
Vancouver (Stanley Park).....	1962-1963	Continuation of sea wall. Completed.

DREDGING BY DEPARTMENTAL DREDGES, 1962-63

<i>Dredge No.</i>	<i>Location</i>	<i>Total Cubic Yards</i>
NEWFOUNDLAND		
22	Fortune, Grand Bank.....	79,789
400	St. John's Harbour, Bonavista, Joe Batts Arm, Carmenville, Wesleyville, Bay Roberts, Garnish, Rencontre East, Grand Bank, Terrenceville, Port au Bras.....	27,906
Drillboat No. 401	Grand Bank, Port aux Basques.....	13,851.8
PRINCE EDWARD ISLAND		
Pownal No. 2	Wood Islands, Souris, Georgetown.....	28,700
10	Charlottetown, West Point, Beach Point, Poverty Beach..	35,160
12	Nine Mile Creek, Alberton, South River.....	178,515
20	Wood Islands, Caribou, Pictou.....	58,830
25	French River, Jude's Point, Tignish Run, Savage Harbour, Mink River.....	10,321

NOVA SCOTIA

15	Blandford, Blue Rocks, Stonehurst (Tanners Cove), Stonehurst (South Tanners Cove), Swims Point, Yarmouth Bar, Turpentine Island, Upper Port Latour, East Port Medway.....	7,223
16	Jones Harbour, Broad Cove.....	10,124
18	Judique Baxter, Murphy's Pond, Port Hood, Port Hood Island, Cape Auget, Boudreauville, Petit de Grat, West Arichat.....	9,727
19	West Jeddore, Spry Bay, Sambro Head, West Dover, Shad Bay, Ketch Harbour.....	9,176
21	Lunenburg.....	187,927
Dragline	Meteghan River.....	22,838

NEW BRUNSWICK

23	Ste. Marie-sur-Mer, Petit Rocher, Miscou, Little Shippegan	40,250
24	Point Sapin, Richibucto Cape, Chockfish, Caissie Cape, Shediac, Cape Bimet, Cocagne Cape, St. Edward.....	46,515
30	Point Sapin.....	8,159

QUEBEC

130	Baie Comeau, Godbout, Les Escoumains, Tadoussac, Riviere du Loup.....	160,450
128	Anse au Griffon, Black Cape, Paspebiac, Petite Riviere Est, l'Anse au Beaufils, Barachois de Malbaie.....	27,096
129	Grosse Ile, Pointe au Loup, Cap aux Meules, Havre Aubert	56,080
125	Hospital Bay, Havre aux Maisons.....	13,882
Mobile Clamshell	Anse au Griffon, Petite Riviere au Renard, Anse au Beaufils, Carleton, Bonaventure, Gascons (Anse a la Barbe), Gascons (Ruisseau Chapados), Pabos Mills (Anse aux Canards) Anse a Brillant, Marsoui, Cap des Rosiers..	22,749

ONTARIO

116	Port Burwell, Port Stanley.....	107,585
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MANITOBA

201	Red River Mouth.....	52,939
205	Selkirk Slough, Red River (Canadian Industries Ltd), St. Andrews Lock & Dam, Selkirk Island, Gull Bay, Pigeon Point, Gull Island, Lynx Bay, Kinnow Bay, Catfish Creek, Two Rivers, Jackhead Harbour, Calder's Dock, Arnes, Winnipeg Beach.....	65,124
210	Pacheta Bay, The Bluff, Channel Island, Papoose Channel, Mossey River Mouth (Winnipegosis).....	21,179

ALBERTA

250	Athabasca River, Lake Athabasca.....	108,296
251	Mackenzie River, Beaver Lake, Providence, Ferry Crossing, Green Island Rapids.....	14,515
252	Athabasca River Delta.....	76,475
253	Hay River Delta, Fort Resolution, Beaver Lake.....	34,020
324	Norman Wells, Fort Norman, Beaver Lake.....	54,318

BRITISH COLUMBIA

311	Columbia River Narrows.....	32,813
312	Fraser River at Steveston and New Westminster.....	949,315
322	Fraser River, Nicomekl River.....	1,058,963

BRIDGES

Maintenance and repairs were carried out during the year to the following bridges on behalf of the Development Engineering Branch:

Berthierville Bridge, P.Q.; Calumet-Bryson, P.Q.; Chapeau Bridge, P.Q.; Des Joachim's Interprovincial Bridge, Ont., and P.Q.; Hull Causeway, P.Q.; Notre Dame du Nord Bridge, P.Q.; Papineauville Bridge, P.Q.; Pembroke-Allumette Island Interprovincial Bridge, Ont., and P.Q.; Perley Bridge (Interprovincial), Ont. and P.Q.; Portage du Fort Interprovincial Bridge, Ont. and P.Q.; Union Bridge, Ont. and P.Q.; Burlington Channel, Ont.; Kingston La Salle Causeway Ont.; Ottawa City Bridges, Ont.; Shellmouth, Man.; New Westminster Railway Bridge, B.C.

DAMS

The following dams were in operation during the year:

Fryer's Island Dam, French River Dam System, consisting of Big Chaudiere, Little Chaudiere, New Portage Dams; Latchford Dam; Temiskaming Dams; St. Andrew's Lock and Dam; Quinze Dam.

DRY DOCKS

The Champlain Dry Dock was occupied for 547 boat-days by 36 vessels for a total tonnage of 227,027 tons.

The Lorne Dry Dock was occupied for 391 boat-days by 19 vessels for a total tonnage of 56,254 tons.

The Kingston Dry Dock was occupied for 119 days by 15 vessels of a total tonnage of 30,538 tons.

The Selkirk Marine Repair Slip was occupied for 402½ boat-days by 19 vessels of a tonnage of 3,876 tons.

Esquimalt Dry Dock, Esquimalt, B.C.—29 vessels were docked for repairs, cleaning and repainting; the total tonnage being 126,415 tons. The dock was occupied 147 days including Sundays and holidays. 128 vessels were moored at the landing wharf and jetty; the total number of days of occupancy being 805 days and the total tonnage 292,647 tons.

STATEMENT OF FERRY LICENCES IN FORCE DURING
THE FISCAL YEAR ENDING MARCH 31, 1963

Alfred, Ont.—Montebello, Que.....	\$ 15.00
Clarence, Ont.—Thurso, Que.....	20.00
Courtright, Ont.—St. Clair, Mich.....	25.00
Cumberland, Ont.—Masson, Que.....	10.00
Kingsville, Leamington, Pelee Island, Ont.—Sandusky, Ohio.....	25.00
Lefaiivre, Ont.—Notre Dame du Bon Secours, Que.....	30.00
Niagara Falls, Ont.—Niagara Falls, N.Y.....	25.00
Niagara-on-the-Lake, Ont.—Youngstown, N.Y.....	25.00
Quyon, Que.—Moore Landing, Ont.....	125.00
Rockcliffe, Ont.—Gatineau Point, Que.....	25.00
St. Andrews, N.B.—Robbinston, Maine.....	15.00
Sault Ste. Marie, Ont.—Sault Ste. Marie, Mich.....	100.00
Sombra, Ont.—Marine City, Mich.....	1.00
Stag Island, Ont.—Marysville, Mich.....	25.00
Walpole Island, Ont.—Algonac, Mich.....	25.00

BUILDING CONSTRUCTION BRANCH

J. A. Langford, Chief Architect

Location	Date contract awarded	Details
NEWFOUNDLAND		
Burin.....	Sept. 1962	Improvements to heating system—R.C.M.P. Detachment Quarters. In progress.
Happy Valley.....	April 1962	New Post Office Building. Completed December 1962.
St. John's.....	Aug. 1962	Installation of Boilers in Bldg. No. 3, Naval Dockyard. Completed Jan. 1963.
St. John's.....	Feb. 1963	New Shops, Stores and Administration Building to accommodate the Department of Transport. In progress.
PRINCE EDWARD ISLAND		
Charlottetown.....	May 1962	Improvements to ventilation system—Rifle Range Building for R.C.M.P. Completed March 1963.
Charlottetown.....	Feb. 1963	Major repairs and improvements to Federal Building. In progress.
NOVA SCOTIA		
Bridgewater.....	May 1962	New R.C.M.P. Detachment Quarters. Completed January 1963.
Church Point.....	Dec. 1962	New Post Office Building. In progress.
Metaghan.....	Jan. 1963	New Post Office Building. In progress.
Springhill.....	Aug. 1962	New Federal Building to accommodate the Post Office Department and the Unemployment Insurance Commission. In progress.
Sydney Mines.....	Aug. 1962	New Federal Building to accommodate the Post Office Department and the Unemployment Insurance Commission. In progress.
NEW BRUNSWICK		
Gagetown.....	Oct. 1962	New Correctional Camp (Blue Mountain) to accommodate the Department of Justice (Penitentiary). In progress.
Jacket River.....	May 1962	New R.C.M.P. Detachment Quarters. In Progress.
Moncton.....	Oct. 1962	Major repairs and improvements to Federal Building. In progress.
Petitcodiac.....	May 1962	New R.C.M.P. Detachment Quarters. In progress.
Petitcodiac.....	June 1962	New Post Office Building. Completed March 1963.
Port Elgin.....	June 1962	New Federal Building to accommodate the Department of Fisheries and Post Office. In progress.
Sackville.....	April 1962	New Federal Building to accommodate the Post Office, National Revenue, Northern Affairs and National Resources, Justice, Unemployment Insurance Commission and the Canadian National Railways. In progress.
Shippegan.....	May 1962	New Federal Building to accommodate the Department of Fisheries and the Post Office Department. Completed March 1963.
Sussex.....	Aug. 1962	New Federal Building to accommodate National Revenue, Public Works, Veterans Affairs, Fisheries, Post Office and the Unemployment Insurance Commission. In progress.
St. Basile.....	Dec. 1962	New Post Office Building. In progress.
Tracadie.....	May 1962	New Federal Building to accommodate the Department of Fisheries and the Post Office Department. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
QUEBEC		
Abbotsford.....	April 1962	New Post Office Building. Completed January 1963.
Asbestos.....	July 1962	Improvements to courtyard—Federal Building. Completed November 1962.
Black Lake.....	April 1962	New Post Office Building. Completed February 1963.
Baie des Sables.....	Jan. 1963	New Post Office Building. In progress.
Cowansville.....	Mar. 1963	New Medium Security Institution (Phase I) to accommodate the Department of Justice (Penitentiary). In progress.
Fort George.....	July 1962	New Hostel Building including an addition to existing School to accommodate the Department of Citizenship and Immigration. In progress.
Grindstone.....	May 1963	New Residence to accommodate the Department of Fisheries. In progress.
Grand'Mere.....	Mar. 1963	New Federal Building to accommodate the Department of National Revenue (Customs), Post Office and the Unemployment Insurance Commission. In progress.
L'Epiphanie.....	Nov. 1962	New Post Office Building. In progress.
Luceville.....	Dec. 1962	New Post Office Building. In progress.
Montreal.....	May 1962	Supply and installation of new elevators, Postal Terminal Building. In progress.
Montreal.....	Aug. 1962	St. Vincent de Paul Penitentiary, new fence—for Justice. Completed October 1962.
Montreal.....	Sept. 1962	St. Vincent de Paul Penitentiary, Structural Steel for Building C-19, for Justice. Completed November 1962.
Montreal.....	Sept. 1962	Postal Terminal Building—Mail Handling Equipment. In progress.
Montreal.....	Feb. 1963	Alterations to R.C.M.P. Headquarters Building. In progress.
Montreal.....	Nov. 1962	St. Vincent de Paul Penitentiary, Reconstruction, Phase II for Justice. Completed March 1963.
Montreal.....	Jan. 1963	St. Vincent de Paul Penitentiary, Reconstruction, Phase III for Justice. In progress.
Montreal North.....	April 1962	New Post Office Building. In progress.
Magog.....	Nov. 1962	New Federal Building to accommodate the Department of National Revenue (Customs) Post Office and Unemployment Insurance Commission. In progress.
Mansonville.....	Nov. 1962	New Post Office Building. In progress.
Mont Rolland.....	Dec. 1962	New Post Office Building. In progress.
Notre Dame du Nord.....	Nov. 1962	New Post Office Building. In progress.
Phillipsburg.....	April 1962	New Warehouse, Long Room and Terminal Building to accommodate the Department of National Revenue (Customs). In progress.
Parent.....	Aug. 1962	New Post Office Building. Completed February 1963
Pont Rouge.....	Dec. 1962	New Post Office Building. In progress.
Quebec.....	April 1962	Postal Terminal Building. Mail Handling Equipment. In progress.
Quebec.....	June 1962	New Building to accommodate the Unemployment Insurance Commission. In progress.
Quebec.....	Jan. 1963	Major repairs and improvements to Forest Laboratory Building for the Department of Forestry. In progress.
Quebec.....	Mar. 1963	Major alterations to Ste. Foye, Veterans Hospital for the Department of Veterans Affairs. In progress.
St. Ferdinand.....	June 1962	New Post Office Building. Completed November 1962.
St. Genevieve de Pierrefonds...	Oct. 1962	New Post Office Building. In progress.
St. Donat de Montcalm.....	Oct. 1962	New Post Office Building. In progress.
Sillery.....	Nov. 1962	Repairs to Forest Laboratory Building for the Department of Forestry. In progress.
St. Agapit.....	Dec. 1962	New Post Office Building. In progress.
St. Croix.....	Dec. 1962	New Post Office Building. In progress.
St. Jean de Dieu.....	Dec. 1962	New Post Office Building. In progress.
Valcourt.....	April 1962	New Post Office Building. Completed August 1962.
Windsor.....	April 1962	New Post Office Building. In progress.
ONTARIO		
Ottawa City.....	April 1962	Extensive improvements to the Langevin Building. Completed Jan. 1963.
City.....	Oct. 1962	Improvements to Lorne Building. Completed January 1963.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>ONTARIO—Continued</i>		
City.....	June 1962	New Addition including Alterations to existing R.C.M.P. Headquarters Building to accommodate the Department of Justice (R.C.M.P.). In progress.
Confederation Heights.....	May 1962	New Radiation Protection Building. In progress.
Confederation Heights.....	June 1962	Improvements to Ventilation System in Post Office Headquarters Building. Completed January 1963.
Confederation Heights.....	Aug. 1962	Improvements to Cooling Equipment in Cafeteria Building. Completed February 1963.
Central Experimental Farm...	Jan. 1963	New Underground Duct System throughout the Central Experimental Farm area. In progress.
Rideau Hall.....	July 1962	Improvements to existing heating system. Completed December 1962.
Tunney's Pasture.....	July 1962	New elevator in Hygiene Laboratory Building. Completed January 1963.
Montreal Road.....	Dec. 1962	New Administration Building to accommodate the National Research Council. In progress.
Arnprior.....	June 1962	New Federal Building to accommodate the Department of National Revenue (Customs) Post Office and Unemployment Insurance Commission. In progress.
Arnprior.....	Dec. 1962	Improvements to Canadian Defence College. In progress.
Barry's Bay.....	June 1962	New Addition including improvements to existing Post Office Building. Completed January 1963.
Brockville.....	July 1962	New Federal Building to accommodate the Departments of National Revenue (Customs) Agriculture, Post Office Department and Unemployment Insurance Commission. In progress.
Cornwall.....	April 1962	New Corral for Animal Institute for the Department of Agriculture. Completed July 1962.
Chatsworth.....	Jan. 1963	New Post Office Building. In progress.
Carleton Place.....	Mar. 1963	New Federal Building to accommodate the Post Office Department and the Unemployment Insurance Commission. In progress.
Galt.....	April 1962	New Addition to existing Federal Building to accommodate the Departments of National Revenue, Public Works, Post Office Department and the Unemployment Insurance Commission. In progress.
Georgetown.....	April 1962	New Federal Building to accommodate the Department of National Revenue and the Post Office Department. In progress.
Haileybury.....	May 1962	New Post Office Building. Completed January 1963.
Hanover.....	Aug. 1962	New Federal Building to accommodate the Department of Public Works, Post Office Department and the National Film Board. In progress.
Hamilton.....	Oct. 1962	Repairs and improvements to existing Federal Building. Completed January 1963.
Kitchener.....	Oct. 1962	New Postal Terminal Building to accommodate the Post Office Department. In progress.
Kingston.....	Mar. 1963	Reconstruction of West Wall at Penitentiary. In progress.
Lucan.....	April 1962	New Post Office Building. Completed December 1962.
Lindsay.....	May 1962	New Federal Building to accommodate the Departments of Public Works, Agriculture, National Revenue, Veterans Affairs, Post Office Department, and Unemployment Insurance Commission. In progress.
London.....	July 1962	Extensive improvements to existing Federal Building. Completed March 1963.
Manitowaning.....	June 1962	New Federal Building to accommodate the Departments of Citizenship and Immigration and Post Office Department. In progress.
Minden.....	Aug. 1962	New Post Office Building. In progress.
Niagara Falls.....	May 1962	New Addition to existing Federal Building to accommodate the Departments of Agriculture, Citizenship and Immigration, Justice (R.C.M.P.) and Post Office Department. In progress.
Noelville.....	Jan. 1963	New Post Office Building. In progress.
Osgoode Station.....	Dec. 1962	New Post Office Building. In progress.
Odessa.....	Jan. 1963	New Post Office Building. In progress.
Orangeville.....	Jan. 1963	New Federal Building to accommodate the Departments of National Revenue (Customs) Veterans Affairs and the Post Office Department. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>ONTARIO—Concluded</i>		
Portland	April 1962	New Post Office Building. Completed January 1963.
Petawawa	Aug. 1962	New Addition to existing Forest Products Laboratory to accommodate the Department of Forestry. In progress.
Petrolia	Aug. 1962	New Federal Building to accommodate the Departments of Public Works, Veterans Affairs and the Post Office Department. In progress.
Pigeon River	Feb. 1963	New Customs Buildings to accommodate the Department of National Revenue (Customs). In progress.
Stayner	July 1962	New Post Office Building. In progress.
Sudbury	Oct. 1962	Improvements to existing Federal Building. In progress.
Springfield	Jan. 1963	New Post Office Building. In progress.
Smiths Falls	Mar. 1963	New Federal Building to accommodate the Departments of National Revenue (Customs) Veterans Affairs and the Unemployment Insurance Commission. In progress.
Toronto	April 1962	Improvements to existing Arthur Meighen's Building. Completed Jan. 1963.
Toronto	June 1962	New Standards Building to accommodate the Department of Trade and Commerce. In progress.
Toronto	Sept. 1962	New Building to accommodate the Unemployment Insurance Commission. In progress.
Toronto	Jan. 1963	New Loading Dock at the existing Post Office Building. In progress.
Tottenham	Dec. 1962	New Post Office Building. In progress.
Utterson	Mar. 1963	New Post Office Building. In progress.
Verona	Jan. 1963	New Post Office Building. In progress.
Weston	April 1962	New Federal Building to accommodate the Post Office Department and the Unemployment Insurance Commission. In progress.
Waterloo	Mar. 1963	New Federal Building to accommodate the Departments of Agriculture, National Revenue (Customs) and the Post Office Department. In progress.
<i>MANITOBA</i>		
Ashern	Nov. 1962	New Post Office Building. In progress.
Boissevain	Aug. 1962	Improvements to sewage disposal on the site of the existing Customs Buildings. In progress.
Elphinstone	May 1962	New R.C.M.P. Detachment Quarters to accommodate the Department of Justice (R.C.M.P.). Completed March 1963.
East Kildonan (Winnipeg)	May 1962	New Letter Carrier Depot to accommodate the Post Office Department. In progress.
Lena	April 1962	New Customs Highway Office Building to accommodate the Department of National Revenue (Customs). Completed November 1962.
Somerset	Nov. 1962	New Post Office Building. In progress.
Stoney Mountain	Feb. 1963	Minor repairs and improvements to Penitentiary for the Department of Justice (Penitentiary). In progress.
St. Boniface	July 1962	Remove and relocate Inspection Building for the Department of Agriculture. Completed December 1962.
Winnipeg	May 1962	New Letter Carrier Depot "R" to accommodate the Post Office Department. In progress.
Winnipeg	May 1962	Minor improvements to Post Office Building. Completed November 1962.
Winnipeg	Dec. 1962	Minor improvements to Post Office Building. In progress.
Winnipeg (Fort Garry)	July 1962	New Letter Carrier Depot to accommodate the Post Office Department. In progress.
<i>SASKATCHEWAN</i>		
Borden	April 1962	New Post Office Building. Completed December 1962.
Birch Hills	Nov. 1962	New Post Office Building. In progress.
Climax	Nov. 1962	New Post Office Building. In progress.
Glaslyn	Nov. 1962	New Post Office Building. In progress.
Hague	Nov. 1962	New Post Office Building. In progress.
Leader	Aug. 1962	New Post Office Building. Completed March 1963.
Lafleche	Nov. 1962	New Post Office Building. In progress.
Lestock	Nov. 1962	New Post Office Building. In progress.

BUILDING CONSTRUCTION BRANCH—Continued

Location	Date contract awarded	Details
<i>SASKATCHEWAN—Concluded</i>		
Milestone.....	May 1962	New R.C.M.P. Detachment Quarters to accommodate the Department of Justice (R.C.M.P.). Completed March 1963.
Maryfield.....	Dec. 1962	New Post Office Building. In progress.
Northgate.....	Nov. 1962	New Customs Highway Office Building to accommodate the Department of Citizenship and Immigration. In progress.
Neudorf.....	Nov. 1962	New Post Office Building. In progress.
Regina.....	July 1962	Minor repairs and improvements to existing Post Office Building. In progress.
Regina.....	Feb. 1963	New Agronomy Building to accommodate the Department of Agriculture. In progress.
Saskatoon.....	April 1962	Major Alterations and improvements to existing old Public Building. In progress.
Swift Current.....	Aug. 1962	New Administration Building at the Research Laboratory to accommodate the Department of Agriculture. In progress.
Star City.....	Nov. 1962	New Post Office Building. In progress.
Sturgis.....	Nov. 1962	New Post Office Building. In progress.
Shellbrook.....	Dec. 1962	New Federal Building to accommodate the Departments of Public Works, National Health and Welfare, Citizenship and Immigration and the Post Office Department. In progress.
Wakaw.....	Nov. 1962	New Post Office Building. In progress.
Waskesiu Lake.....	Mar. 1963	New Post Office Building. In progress.
Young.....	Nov. 1962	New Post Office Building. In progress.
<i>ALBERTA</i>		
Andrew.....	Dec. 1962	New Post Office Building. In progress.
Breton.....	May 1962	New R.C.M.P. Detachment Quarters to accommodate the Department of Justice (R.C.M.P.). Completed January 1963.
Bashaw.....	Dec. 1962	New Post Office Building. In progress.
Bentley.....	Dec. 1962	New Post Office Building. In progress.
Coutts.....	Nov. 1962	New Post Office Building. In progress.
Edgerton.....	Dec. 1962	New Post Office Building. In progress.
Edmonton.....	Jan. 1963	New Grain Inspection Building to accommodate the Department of Agriculture. Completed March 1963.
Evansburg.....	Dec. 1962	New Post Office Building. In progress.
High Prairie.....	Aug. 1962	New Federal Building to accommodate the Departments of Agriculture (Farm Credit Corporation), Citizenship and Immigration and the Post Office Department. In progress.
Irma.....	Dec. 1962	New Post Office Building. In progress.
Kitscoty.....	Jan. 1963	New Post Office Building. In progress.
Meanook.....	Feb. 1963	Minor improvements to Dominion Observatory Building. In progress.
Raymond.....	June 1962	New Post Office Building. In progress.
<i>BRITISH COLUMBIA</i>		
Aldergrove.....	May 1962	New Post Office Building. Completed December 1962.
Agassiz.....	June 1962	New Mountain Prison for the Department of Justice (Penitentiary). In progress.
Agassiz.....	Feb. 1962	Additional electrical work at Mountain Prison. In progress.
Brentwood Bay.....	Dec. 1962	New Post Office Building. In progress.
Fort St. James.....	Sept. 1962	Minor improvements to R.C.M.P. Detachment Quarters. In progress.
Gibsons.....	May 1962	New Post Office Building. Completed December 1962.
Kamloops.....	Oct. 1962	New Federal Building to accommodate the Departments of Agriculture, Citizenship and Immigration, Fisheries, Northern Affairs and National Resources, National Health and Welfare, National Revenue, Veterans Affairs and the Post Office Department and the Unemployment Insurance Commission. In progress.

BUILDING CONSTRUCTION BRANCH—Concluded

Location	Date contract awarded	Details
<i>BRITISH COLUMBIA—Concluded</i>		
Kaslo.....	Dec. 1962	New Post Office Building. In progress.
Keremeos.....	Jan. 1963	New Post Office Building. In progress.
Matsqui.....	Jan. 1963	Site Work or Phase I of new Penitentiary for the Department of Justice (Penitentiary). In progress.
New Westminster.....	Aug. 1962	Minor improvements to Penitentiary Building. Completed December 1962.
New Westminster.....	Oct. 1962	Minor improvements to Penitentiary Building. In progress.
North Vancouver.....	Sept. 1962	New Addition to St. Paul Indian School for the Department of Citizenship and Immigration. Completed March 1963.
New Westminster.....	Oct. 1962	Minor improvements to Penitentiary Building for the Department of Justice (Penitentiary). In progress.
Prince Rupert.....	July 1962	New Water Storage Tank to serve the existing Hospital Building for the Department of National Health and Welfare. In progress.
Prince Rupert.....	Dec. 1962	New Storage Building to accommodate the Department of Fisheries. Completed March 1963.
Salmon Arm.....	June 1962	New R.C.M.P. Detachment Quarters including a 3-car garage to accommodate the Department of Justice (R.C.M.P.). Completed Jan. 1963.
Vancouver.....	June 1962	New Standards Building to accommodate the Department of Trade and Commerce. In progress.
Vancouver.....	Sept. 1962	Major improvements on 8th and 9th floors of the Customs Building. In progress.
Victoria.....	Jan. 1963	Minor improvements to water supply of Dominion Observatory Building. In progress.
Winfield.....	Dec. 1962	New Post Office Building. In progress
<i>YUKON AND NORTHWEST TERRITORIES</i>		
Fort Smith.....	June 1962	New Addition to existing School Building to accommodate the Department of Northern Affairs & National Resources. Completed February 1963.
Frobisher Bay.....	July 1962	Phase I of New Hospital including a new Warehouse and Vault Building to accommodate the Departments of National Health & Welfare, Northern Affairs & National Resources and Mines and Technical Surveys. In progress.
Hay River.....	Feb. 1963	New Health Centre Building to accommodate the Department of National Health & Welfare. In progress.
Inuvik.....	Jan. 1963	New Building including an addition to the existing Hospital Building to accommodate the Departments of Northern Affairs & National Resources and National Health and Welfare. In progress.
Tuktoyaktuk.....	Aug. 1962	New Oil Storage System for the Department of Northern Affairs and National Resources. In progress.
Yellowknife.....	April 1962	New Children's Receiving Home for the Department of Northern Affairs and National Resources. In progress.
Yellowknife.....	Nov. 1962	New Assay Office Building and new Addition to existing Health Centre Building to accommodate the Departments of Northern Affairs and National Resources and National Health and Welfare. In progress.

DEVELOPMENT ENGINEERING BRANCH

G. T. Clarke, Chief Engineer

Location	Date contract awarded	Description
PRINCE EDWARD ISLAND		
Port Borden.....	Oct. 1962	Widening approach fills to Ferry Terminal—in progress.
Prince Edward Island National Park Gulf Shore Road.....	Oct. 1962	Repairs to Covehead Inlet Bridge—in progress.
NOVA SCOTIA		
Cape Breton Highlands National Park Cabot Trail—Effies Brook—Neil's Harbour.....	Aug. 1961	Grading, culverts and paving—completed.
Oceanographic and hydrographic research station, Dartmouth.....	May 1962	Storm Sewers, paving and landscaping—completed.
NEW BRUNSWICK AND QUEBEC		
Campbellton, N.B.—Cross Point, P.Q.....	May 1962	Installation of lighting on Interprovincial Bridge—completed.
ONTARIO AND QUEBEC		
Ottawa, Ont.—Hull, P.Q.....	Dec. 1962	Macdonald-Cartier Interprovincial Bridge—in progress.
Hawkesbury, Ont.—Grenville, P.Q.....	Mar. 1963	Installation of lighting on Perley Bridge—in progress.
ONTARIO		
Ottawa.....	Nov. 1961	Improvements to drainage area of Black Rapids Creek—Dominion Experimental Farm—completed.
Burlington.....	Oct. 1958	Substructure Lift Bridge over Burlington Ship Canal—completed.
Burlington.....	Mar. 1958	Superstructure Lift Bridge over Burlington Ship Canal—completed.
Burlington.....	July 1960	Approaches to Burlington Lift Bridge—completed.
Markdale-Dundalk Medium Security Prison.....	Dec. 1962	Well drilling and testing—completed.
Sioux Lookout Hospital.....	Sept. 1961	Paving access road and parking areas—completed.
MANITOBA		
Churchill.....	April 1961	Construction of intake pumphouse—in progress.
Riding Mountain National Park MacKinnon Ski Hill Access Road.....	Sept. 1962	Grading, culverts and surface treatment—in progress.
SASKATCHEWAN		
Prince Albert National Park.....	June 1961	Halkett Lake Diversion of Waskesiu Highway 1.8 miles and Crean Lake Road from East end of Hearts Lake, 4.6 miles—completed.
Regina.....	Dec. 1961	Replacement of water and fire mains systems R.C.M.P. Barracks—completed.
North Portal.....	April 1962	Drilling of water supply well—completed.

DEVELOPMENT ENGINEERING BRANCH—Continued

Location	Date contract awarded	Description
ALBERTA		
Meanook.....	Oct. 1961	Pave roads and parking area of Dominion Observatory—completed.
Banff National Park—Trans-Canada Highway, Mile 14-32.....	May 1961	Paving—completed.
Banff National Park—Trans-Canada Highway Mile 32-51.1.....	June 1961	Paving—completed.
Banff National Park.....	Jan. 1962	Construction of the Banff Windemere Interchange with the Trans-Canada Highway—completed.
Banff National Park Trans-Canada Highway.....	July 1961	Painting and repair of various bridges—completed.
Banff National Park—Norquay Access Road to Banff Townsite.....	Mar. 1962	40 mile Creek Bridge—completed.
Banff National Park—Banff-Jasper Highway—Mile 67.7-74.....	Aug. 1960	Grading, culverts, sub base course, base course and Nigel Creek Bridge—completed.
Banff and Jasper National Parks Banff-Jasper Highway Mile 67.5-86.0.....	June 1962	Bituminous Pavement—completed.
Jasper National Park Banff-Jasper Highway Mile 86.0-104.5.....	May 1962	Bituminous Pavement—completed.
Jasper National Park Banff-Jasper Highway Mile 105-115.0.....	April 1961	Grading, culverts, base and seal coat—in progress.
Jasper National Park Banff-Jasper Highway Mile 125.0-139.4.....	April 1961	Grading, culverts, and base course—completed.
Jasper National Park Banff-Jasper Highway Mile 139.5.....	Nov. 1961	Athabasca River Bridge—completed.
Jasper National Park Jasper-Edmonton Highway Mile 0-11.....	July 1961	Grading, culverts, base course and Snaring River Bridge—in progress.
Jasper National Park Medicine Lake-Maligne Lake Road Mile 0-5.5.....	June 1961	Grading and base course—completed.
Waterton Lakes National Park Chief Mountain Highway Mile 8-13.8.....	July 1961	Grading, culverts and base course—in progress.
Wood Buffalo Park.....	Dec. 1961	Construction of Development Road—Pine Lake—Peace Point—in progress.
BRITISH COLUMBIA		
Yoho National Park Trans-Canada Highway Mile 16-28.4 Emerald Lake Road—Mile 0-5.....	May 1962	Paving—in progress.
Yoho National Park Trans-Canada Highway.....	July 1961	Paintwork and repairs to bridges—completed.
Glacier National Park Trans-Canada Highway Mile 0-27.3.....	April 1961	Bituminous base and site development for Commemorative Monument—completed.
Glacier National Park Rogers Pass.....	June 1962	Trans-Canada Highway Commemorative Monument—completed.
Glacier National Park Trans-Canada Highway Mile 11.63 and Mile 10.78.....	April 1961	Construction of snowsheds—completed.
Glacier National Park Trans-Canada Highway Mile 10.99 and Mile 11.28.....	Feb. 1962	Construction of snowsheds—in progress.
Glacier and Revelstoke National Parks—Trans-Canada Highway.....	Aug. 1962	Erect guide fence—in progress.
Revelstoke National Park Trans-Canada Highway.....	May 1962	Construction of Trans-Canada Highway Interchange with Mt. Revelstoke National Park Road—completed.
Kootenay National Park Banff-Windemere Highway Mile 56.2-62.4.....	Feb. 1961	Grading, culverts, base course, seal, production and stock piling of concrete aggregate—completed.
YUKON TERRITORY		
Watson Lake—Ross River Road Mile 34.8-68.8.....	April 1961	Construction of Development Road—completed.

DEVELOPMENT ENGINEERING BRANCH—Concluded

Location	Date contract awarded	Description
<i>YUKON TERRITORY—Concluded</i>		
Watson Lake—Ross River Road Mile 225-175.....	April 1961	Construction of Development Road—in progress.
Watson Lake—Ross River Road Mile 35.8	May 1962	Construction of bridge over the Francis River—in progress.
Northeasterly from Mile 65 of Watson Lake—Ross River Road Mile 0-80.....	June 1961	Nahanni Range Road—completed.
Flat Creek—Eagle Plain Road Mile 0.2...	Aug. 1961	Klondike River Bridge and Approaches—completed.
Flat Creek—Eagle Plain Road Mile 0-76..	June 1962	Completion of drainage and grading—completed.
Stewart Crossing—Dawson Road Two miles East of Dawson City.....	May 1961	Ogilvie Bridge—completed.
Stewart Crossing—Dawson Road Mile 295	May 1961	Mcquesten River Bridge—completed.
<i>NORTHWEST TERRITORIES</i>		
MacKenzie Highway Mile 25-51.....	June 1961	Reconstruction of MacKenzie Highway—completed.
MacKenzie Highway Mile 51-76.....	May 1962	Reconstruction of MacKenzie Highway—in progress.
MacKenzie Highway Mile 0-51.....	June 1962	Gravelling—in progress.
West Channel at Hay River 2 miles South of Town of Hay River.....	Aug. 1962	Construction of bridge—in progress.
Great Slave Highway Extension Mile 1.6.	Aug. 1961	Yellowknife River Bridge—completed.
Yellowknife-Giant Mines Road Mile 2.0		
Giant Mines Road to Mile 0 of the Yellowknife MacKay Lake Rd.....	Sept. 1961	Grading, culverts and gravel surfacing—completed.

BRIDGES AND OTHER STRUCTURAL WORK, INCLUDING PRELIMINARIES
PARTIALLY OR FULLY DESIGNED DURING FISCAL YEAR 1962-63

(a) *For Trans-Canada Highway in National Parks*

Tupper Timber Snowshed.....	Glacier
Lengthening of Lens Snowshed.....	Glacier
Connecting Timber No. 2 and No. 3 Snowsheds.....	Glacier
Avalanche Defence Mile 4.7.....	Glacier
*T.C.H. Commemorative Monument.....	Glacier
Snow Fences for Snowsheds.....	Glacier

(b) *For Department of Northern Affairs and National Resources*

**Ross River Bridge Mile 50.1.....	Northwest Territories
**Ross River Bridge Mile 54.8.....	Northwest Territories
**Creek River Bridge.....	Northwest Territories
Covehead Inlet Bridge—Repairs.....	P.E.I. Nat'l. Park.
**Athabasca River Bridge Mile 12 East.....	Jasper
*Kakisa Bridge—Repairs.....	Northwest Territories
**Fiddle River Bridge.....	Jasper
Miette River Bridge Mile 143.7.....	Jasper
**Rustico River Bridge.....	P.E.I. Nat'l. Park
*Broad Cove Bridge.....	Terra Nova
Athabasca Falls Bridge.....	Jasper
Nahanni Road Bridges.....	Yukon
**Hay River West Channel.....	Northwest Territories
*Hay River Pine Point.....	Northwest Territories
*Swede Creek Culvert.....	Northwest Territories
*Reindeer Creek Culvert.....	Northwest Territories
Birch Creek Bridge.....	Northwest Territories
Sandy Creek Bridge.....	Northwest Territories
Twin Creek Bridge.....	Northwest Territories
Buffalo River Crossing.....	Northwest Territories
Little Buffalo River bridge.....	Northwest Territories
Jackfish River Crossing.....	Northwest Territories
Fort Providence Fort Simpson road crossing at mile 46.4....	Northwest Territories
**Rocky River Bridge No. 1.....	Jasper
**Rocky River Bridge No. 2.....	Jasper
Sinclair Canyon Road culvert realignment.....	Kootenay
Water Reservoir Radium Hot Springs.....	Kootenay

(c) *For Department of Justice*

North Wall Kingston Penitentiary.....	Kingston, Ont.
North Section of West Wall Kingston Penitentiary.....	Kingston, Ont.
Staff College Kingston Penitentiary.....	Kingston, Ont.
Sewage Plant Joyceville.....	Ontario
Floor load capacity Joyceville.....	Ontario

(d) *Miscellaneous*

Chaudiere Bridge—Minor repairs.....	Ottawa
Perley Bridge—Minor Repairs.....	Hawkesbury, Ont.
Matapedia Bridge—repairs.....	N.B.—Que.
Campbellton-Cross Point Bridge (land transfer).....	N.B.—Que.
Champlain Bridge—Repairs.....	Ottawa-Hull
Design for column repairs Buchanan Canal Bridge.....	Ottawa
Retaining walls—Peterborough lift lock.....	Ontario
Plans & specifications for deck repairs on Buchanan and O.H.- E.C. Canal Bridges.....	Ottawa
Bronson Canal Bridge—minor repairs.....	Ottawa

(e) *Emergency Measures Organization*

Investigation and report on protection factors for several new federal buildings as supplied by Chief Architect, D.P.W..	Various Locations
Radiation dosage assessment for Heating Plant in Ottawa....	Ottawa

NOTES:

*Design on these projects was started in 1961-62 fiscal year and continued in 1962-63.

**Design on these projects was started in previous fiscal years. Work in 1962-63 consisted of further investigation and change in design.

(f) *Reports*(i) *Technical*

Alexandra Bridge (Interprovincial).....	Ottawa-Hull
National Health & Welfare Adm. Bldg.....	Tunney's Pasture Ottawa

(ii) *Historical (Bridges)*

Edmunston-Madawaska.....	N.B.—Maine
St. Leonard-VanVuren.....	N.B.—Maine
St. Stephen-Calais.....	N.B.—Maine
St. Croix—Vanceboro.....	N.B.—Maine
Clair-Fort Kent.....	N.B.—Maine
Campbellton-Cross Point.....	N.B.—Que.
Matapedia.....	N.B.—Que.

(iii) *Inspection of Bridges*

Cape Breton Highlands National Park.....	Nova Scotia
Terra Nova National Park.....	Newfoundland
Yukon Territories.....	
Northwest Territories.....	
Kakisa River Bridge.....	Northwest Territories
Banff National Park.....	Alberta
Jasper National Park.....	Alberta
Yoho National Park.....	British Columbia
Kootenay National Park.....	British Columbia
Waterton Lakes National Park.....	Alberta
Glacier National Park.....	British Columbia
Revelstoke National Park.....	British Columbia
Ottawa River Valley.....	Ontario—Quebec

(g) *Trans-Canada Highway Provincial Bridges**Checked for Approval under Schedule "B"*

	No. of Bridges
Quebec.....	46
Ontario.....	16
Alberta.....	1
British Columbia.....	10
Nova Scotia.....	8

Roads to Resources Bridges

Quebec.....	2
Alberta.....	2
Manitoba.....	1
New Brunswick.....	5

DEPARTMENT OF PUBLIC WORKS

TESTING LABORATORIES DIVISION

Quantity of Each Type Of Material Received

Material	Samples Received	
	Total	Sub-Total
Concrete Aggregates.....	286	
Concrete Test Specimens.....	3,547	
Concrete Products.....	218	
Cement.....	156	
Ceramic Materials.....	457	
Rock.....	246	
Metal.....	29	
Aluminum Windows.....	43	
Miscellaneous.....	201	
Sub-Total—Physical Section.....	5,183	5,183
Soils (Foundation Material).....	2,293	
Sub-Total—Soils Section.....	2,293	2,293
Creosote Oils.....	85	
Protective Coatings.....	831	
Petroleum Products.....	182	
Soaps and Detergents.....	109	
Waxes and Polishes.....	45	
Water.....	86	
Office Supplies.....	470	
Paper Products.....	63	
Sweeping Compounds.....	11	
Cement.....	46	
Miscellaneous.....	685	
Sub-Total—Chemical Section.....	2,613	2,613
Concrete Aggregates.....	112	
Concrete Test Specimens.....	1,380	
Soil Cements.....	1	
Hydraulic Cement.....	58	
Rock.....	2	
Asphalt Aggregates from Construction Control.....	46	
Aggregates from materials survey.....	144	
Top Soil Properties.....	7	
Disturbed Soils from Soils Surveys.....	157	
Disturbed Soils from Foundation Investigation.....	353	
Undisturbed Soils from Foundation Investigation.....	252	
Asphalt Cements.....	575	
Asphalt Cutbacks.....	36	
Asphalt Emulsions.....	5	
Asphalt Mix from Construction Control.....	1,240	
Marshall Stability Mix Designs.....	22	
Creosote Oils.....	61	
Sub-Total—Banff Section.....	4,451	4,451
TOTAL.....	14,540	14,540
Creosote Reports Reviewed.....	320	320
GRAND TOTAL—Samples and Reports.....	14,860	14,860

TESTING LABORATORIES DIVISION

Source of samples received and quantity from each source

Material	Samples Received	
	Total	Sub-Total
Department of Public Works		
Harbours and Rivers Engineering Branch.....	2,455	
Building Construction Branch.....	4,429	
Property and Building Management.....	75	
Purchasing and Stores Branch.....	251	
Development Engineering Branch.....	3,265	
TOTAL FOR PUBLIC WORKS.....	11,493	11,493
Department of Public Printing and Stationery.....	471	
Department of Transport.....	919	
Department of National Defence.....	103	
Department of Justice.....	208	
Central Mortgage and Housing.....	373	
Northern Affairs and National Resources.....	392	
Other Sources.....	581	
TOTAL FROM OTHER SOURCES.....	3,047	3,047
TOTAL.....	14,540	14,540

REPORT OF THE TREASURY OFFICE

J. M. Wilkinson, Chief Treasury Officer

STATEMENT OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS
DURING THE FISCAL YEAR ENDING MARCH 31, 1963

	Dredging	Construc- tion and improve- ments	Repairs and main- tenance	Staff and sundries	Total
PUBLIC BUILDINGS					
Outside of Canada.....		3,270	59,320	629,265	691,855
Newfoundland.....		133,238	251,335	600,415	984,988
Nova Scotia.....		981,349	119,649	1,263,126	2,364,124
Prince Edward Island.....		20,477	20,874	200,117	241,468
New Brunswick.....		1,067,433	168,646	886,759	2,122,838
Quebec.....		4,252,012	739,412	6,780,455	11,771,879
Ontario.....		15,508,954	2,659,046	23,095,631	41,263,631
Manitoba.....		439,120	187,552	1,496,802	2,123,474
Saskatchewan.....		1,034,089	159,813	1,275,839	2,469,741
Alberta.....		453,834	127,068	1,630,054	2,210,956
Yukon and Northwest Territories.....		218,195	199,748	408,033	825,976
British Columbia.....		2,047,192	363,893	2,741,430	5,152,515
TOTALS.....		26,159,163	5,056,356	41,007,926	72,223,445
HARBOURS AND RIVERS—ENGINEERING SERVICES					
Newfoundland.....	673,534	5,127,548	547,414	118,614	6,467,110
Nova Scotia.....	628,585	1,792,138	376,124	5,489	2,802,336
Prince Edward Island.....	420,577	951,741	170,665	148,111	1,691,094
New Brunswick.....	1,032,491	728,778	160,137	61,052	1,982,458
Quebec.....	608,267	4,449,535	840,644	316,928	6,215,374
Ontario.....	395,172	6,530,451	338,727	88,257	7,352,607
Manitoba.....	238,346	66,710	69,956	30,123	405,135
Saskatchewan.....		570	72		642
Alberta.....	263,100	5,276	28,083	75,050	371,509
Yukon and Northwest Territories.....		276,170	24,738	47,327	348,235
British Columbia.....	1,091,501	1,240,194	539,051	269,741	3,140,437
TOTALS.....	5,351,573	21,169,111	3,095,611	1,160,692	30,776,987
DEVELOPMENT ENGINEERING					
Newfoundland.....		1,055,894			1,055,894
Nova Scotia.....		1,124,826			1,124,826
Prince Edward Island.....		66,348			66,348
New Brunswick.....		1,719,832	25,460	516	1,745,808
Quebec.....		9,699,662	68,657	12,340	9,780,659
Ontario.....		5,255,497	165,326	85,002	5,505,825
Manitoba.....		822,739	319		823,058
Saskatchewan.....		48,465			48,465
Alberta.....		564,458			564,458
Yukon and Northwest Territories.....				1,040	1,040
British Columbia.....		13,579,613			13,579,613
Testing Laboratories.....				1,014,979	1,014,979
TOTALS.....		33,937,334	259,762	1,113,877	35,310,973
MISCELLANEOUS					
Minister's Salary and Motor Car Allowance.....				16,132	16,132
General Administration.....				11,118,896	11,118,896
Fire Prevention.....				247,270	247,270
TOTAL.....				11,382,298	11,382,298
GRAND TOTALS.....	5,351,573	81,265,608	8,411,729	54,664,793	149,693,703

*NOTE: Details of expenditures covering individual contracts may be found in the Public Accounts for 1962-1963.

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1962-63

Revenue received by the Department of Public Works
during the fiscal year ending March 31, 1963

PUBLIC BUILDINGS

ORDINARY—

Rents from Public Buildings and related properties.....	\$ 1,739,450.38
Sales of old furniture, fittings and building material, etc.....	623.58
Sales of real estate.....	19,798.50
Commissions from telephone booths in public buildings.....	23,559.77
Refunds of Previous Years' Expenditures.....	176,123.78
	<u>\$ 1,959,556.01</u>

ENGINEERING WORKS

Sales of real estate.....	\$ 37,024.77
Sales of old vessels and plant.....	1.00
Earnings of Dry Docks, etc.....	
Champlain Dry Dock, Lauzon, Que.....	236,823.94
Lorne Dry Dock, Lauzon, Que.....	50,144.25
Selkirk, Man., Repair Slip.....	3,365.21
Esquimalt, B.C., New Dry Dock.....	109,982.76
	<u>\$ 437,341.93</u>

Revenue from leased works and plants—

Kingston, Ont., Dry Dock, Rental.....	\$ 12,100.00
Ferry privileges.....	281.00
Earnings of dredges and plants.....	21,132.01
	<u>\$ 33,513.01</u>

Rents from water lots, etc.....	75,119.75
Refunds of Previous Years' Expenditures.....	621,530.30
Sundry receipts.....	1,572.18
	<u>\$ 1,169,077.17</u>

MISCELLANEOUS

Damages to government property.....	\$ 11,900.35
Sundry receipts.....	155,609.61
	<u>\$ 167,509.96</u>

GENERAL SUMMARY

Public Buildings.....	\$ 1,959,556.01
Engineering Works.....	1,169,077.17
Miscellaneous.....	167,509.96
	<u>\$ 3,296,143.14</u>

REPORT OF THE CHIEF TREASURY OFFICER, 1962-63—Concluded

DEPARTMENT OF PUBLIC WORKS

1962-63 REVENUE

The revenue for the year amounted to \$3,296,143.14 and was made up as follows:

Graving Docks.....	\$ 400,316.16
Rents.....	1,847,802.14
Casual Revenue.....	1,047,743.84
Ferries.....	281.00
	<hr/>
	\$ 3,296,143.14

A breakdown of the above revenue follows:

<i>Graving Docks—Maintenance and Operation</i>	
Champlain Graving Dock.....	\$ 236,823.94
Lorne Graving Docks, Lauzon, Que.....	50,144.25
Selkirk, Man.—Repair Slip.....	3,365.21
Esquimalt, B.C.—Graving Dock.....	109,982.76
	<hr/>
	\$ 400,316.16

<i>Rents</i>	
Public Buildings.....	\$ 1,739,450.38
Water lots.....	75,119.75
Kingston Dry Dock.....	12,100.00
Earnings of the Dredges.....	21,132.01
	<hr/>
	\$ 1,847,802.14

<i>Casual Revenue</i>	
Sales of old furniture, etc.....	\$ 623.58
Sales of real estate—Buildings.....	19,798.50
Commission from telephones in Public Buildings.....	23,559.77
Refunds of previous years' expenditures—Public Buildings.....	176,123.78
Refunds of previous years' expenditures—Engineering	621,530.30
Sundry receipts—Engineering.....	1,572.18
Damages to Government property.....	11,900.35
Sundry receipts—Miscellaneous.....	155,609.61
Sales of real estate—Engineering.....	37,025.77
	<hr/>
	\$ 1,047,743.84

<i>Ferries</i>	
Licence fees.....	\$ 281.00
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Government
Publications



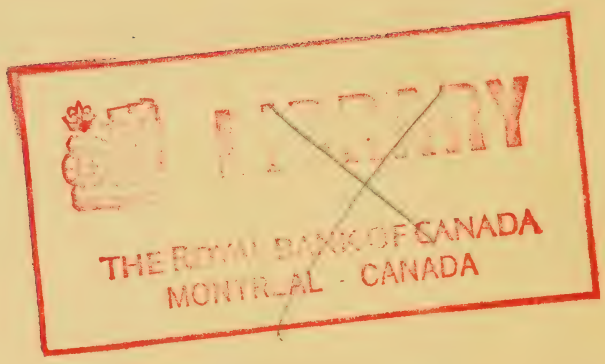
Department of Public Works

ANNUAL REPORT

for the fiscal year ended March 31, **1964**

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Government
Publications

REPORT of the
DEPARTMENT of
PUBLIC WORKS

for the fiscal year
ended
MARCH 31,
1964

ROGER DUHAMEL, F.R.S.C.
Queen's Printer and Controller of Stationery
Ottawa, Canada
1965



To His Excellency Major-General Georges Vanier, D.S.O., M.C., C.D., Governor-General and Commander-in-Chief of Canada.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1964.

Respectfully submitted,
JEAN-PAUL DESCHATELETS,
Minister of Public Works

January 29, 1965.

The Honourable Jean-Paul Deschatelets, Minister of Public Works, Ottawa.

SIR:

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1964.

Your obedient servant,

LUCIEN LALONDE,

Deputy Minister.

January 29, 1965.

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

As of March 31, 1964

Minister	Hon. Jean-Paul Deschatelets
Parliamentary Secretary	G. R. McWilliam, M.P.
Executive Assistant to the Minister	G. Legare
Deputy Minister	Lucien Lalonde
Special Adviser to the Deputy Minister	E. A. Gardner
Executive Assistant to the Deputy Minister	
Assistant Deputy Minister	George T. Jackson
Assistant Deputy Minister (Technical)	G. B. Williams
Chief of Administrative Services and Secretary	Robert Fortier
Director, Economic Studies Branch	C. J. Daly
Financial Adviser	L. B. Boyle
Chief, Purchasing and Stores Branch	H. G. Hunt
Chief, Information Services	
Chief, Personnel Branch	J. F. Maxwell
Chief, Legal Services	Alban Garon
Management Services	R. E. Rodgers
Dominion Fire Commissioner	R. A. Switzer

Regional Directors

Montreal	R. J. Grenier (On Loan to Headquarters)
Edmonton	R. G. McFarlane

Harbours and Rivers Engineering Branch

Chief Engineer	G. Millar
Chief, Marine Excavation Division	J. F. Godsell
Chief, Maintenance and Operations Division	C. K. Hurst
Chief, Planning and Construction Division	J. E. Bright

District Engineers

St. John's	G. E. Knight
Charlottetown	T. B. McLennan
Halifax	J. A. Brown
Saint John	E. D. Manchul
Rimouski	J. Vachon
Quebec	G. Lajoie
Montreal	J. P. Chevalier
Ottawa	P. W. Walters

Toronto	R. P. Henderson
London	G. N. Scroggie
Fort William	R. Seawright
Winnipeg	C. L. Davies
Edmonton	J. P. Livingston
Vancouver	A. W. Walkey

Development Engineering Branch

Chief Engineer	G. T. Clarke
Chief, Engineering and Construction Division	W. R. Binks
Acting Chief, Structures Division	G. H. Foures
Chief, Technical Co-ordination and Administration Division	H. M. Millar
Supervisor Program Control and Administration	W. M. Oakes
Chief, Testing Laboratories	N. E. Laycraft

District Engineers

Newfoundland	A. L. Perley
Nova Scotia	H. F. Peters
New Brunswick and Prince Edward Island	H. A. Nason
Quebec	J. C. Beauchamp
Ontario	W. Koropatnick
Manitoba and Saskatchewan	J. A. Flatt
Alberta and Northwest Territories	J. E. Savage
Banff, Alberta (Western National Parks)	A. H. MacKinnon
British Columbia	B. G. Harvey
Whitehorse, Yukon Territories	J. E. Kellett

Building Construction Branch

Chief Architect	J. A. Langford
Assistant Chief Architect	A. K. Mills
Assistant Chief Architect	W. A. Gibson
Chief, Executive Administration	W. D. Egan
Co-ordinating Architects	
Office Buildings	E. G. Langley
Penitentiaries	
Northern Construction	G. Pritchard
Laboratories	W. N. Thomas
Special Projects	W. H. Robinson

District Architects

St. John's	L. W. Hopkins
Halifax	P. W. Vaughan
Saint John	C. H. Cullum
Montreal and Quebec	P. R. Martineau
Ottawa	R. F. West
Toronto	I. M. Saunders
Winnipeg	H. C. Tod
Edmonton	A. E. Cook
Vancouver	R. J. Bickford

Property and Building Management

Director	D. A. Freeze
Assistant Director	E. C. Martel
Chief, Lands Administration Division	D. H. Livingston
Chief, Accommodation Division	J. H. De Puyjalon
Chief, Operations Division	E. W. Labelle

District Managers

St. John's	J. W. Pye
Halifax	L. B. Campbell
Saint John	R. S. Lawrence
Quebec	E. Raymond
Montreal	G. K. Aubut
Ottawa	B. Payette
Toronto	R. S. Fonberg
London	R. Isted
Winnipeg	A. Yule
Saskatoon	K. C. Moffatt
Edmonton	J. T. Gibson
Vancouver	G. E. McPhee
London, England	W. T. Rutherford

REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
FOR THE
FISCAL YEAR ENDED MARCH 31, 1964

General Introduction

Activities of the Department of Public Works continued at a high level during the 1963-64 fiscal year and this is reflected in the fact that overall expenditures of \$184,789,304.01 represented an increase of \$4,710,360.62 over the previous year when similar expenditures totalled \$180,078,943.39.

While Departmental Estimates of \$154,842,706.04 were up slightly from the \$149,693,703 of the previous year, the value of work carried out under encumbrances of other departments declined slightly from \$30,385,240.39 to \$29,946,597.97. Complete details of the Department's revenue and expenditures are to be found in statements located on pages 47 and 48.

While work continued on a number of major projects which will contribute substantially to the national and local economies, perhaps the highlights of the year were the preparations underway for the transfer to Public Works' jurisdiction on April 1, 1964, of two vital military establishments as well as the Northwest Highway System.

On that date, the Department assumed responsibility for the management of the entire establishment at Fort Churchill, Man., Fort Pepperrell, St. John's, Nfld., and the maintenance and operation of the 1,220 miles of the Alaska Highway lying within Canada and the 112 mile portion of the Haines cutoff road in Canada. Extensive, advanced planning and preparation resulted in the transfer of the responsibility for these facilities with a minimum of disruption.

Construction of the 140 miles of the Trans-Canada Highway through the National Parks which, under the terms of the Act, is a federal responsibility, is now finished with the exception of completing seeding, avalanche defences and remedial works in the western parks, which will be undertaken during the next fiscal year, and the final paving of 25 miles in Terra Nova National Park, Nfld., which is tentatively scheduled for the 1966-67 construction year. It is interesting to note that since the opening of the Rogers Pass section in Glacier National Park in 1962, there has been a tremendous increase in visitor attendance via the Trans-Canada Highway to the western parks. For example, during 1963 visitors to Banff National Park increased 19% while the increase of visitors to Yoho National Park was a phenomenal 91%.

The year also witnessed important advancements in the Department's studies of the construction of a crossing between Prince Edward Island and the mainland. Extensive tests and studies have yielded much valuable information and the construction of a scale model of Northumberland Strait is expected to provide additional data regarding water levels, currents, erosion, siltation, ice movement, etc. which will ultimately determine the most suitable type of crossing to be built.

The program for the construction of Development Roads in the Northwest Territories and the Yukon Territory, which was begun in 1956, is carried out on behalf of the Department of Northern Affairs and National Resources. In this

connection, at year's end the Department had completed surveys on some 1,500 miles and construction on some 700 miles of roads. Similarly, this Department administers the Roads-to-Resources Program for the Department of Northern Affairs and National Resources. Agreements have been entered into with each of the ten provinces covering Canada's contribution to the cost of constructing resources development roads, with the Federal contribution set at 50% of the cost of constructing approved roads up to a maximum of \$7½ million for each province.

In the field of harbours and rivers work the majority of the major contracts for the complete modernization of St. John's Harbour, Newfoundland, were completed during the year under review and plans call for completion of this project during 1964 at a total cost in excess of \$17 million. Major improvement works which were completed in recent years at a number of Great Lake ports and which are now in full operation have assisted substantially in permitting maximum use to be made of the St. Lawrence Seaway facilities.

During the year, the Department co-operated closely with other government departments and agencies as well as private industry in the study and planning of major developments necessary for the economic growth of many Maritime regions and communities. Of special interest and worthy of note are two projects. They are the new perforated wall type of breakwater which has proven so successful since its construction at Baie Comeau and the unique ice control structure which is to be built at a cost of approximately \$13 million to protect the Harbour of Montreal and the 1967 World's Fair site.

During the year, there was a major reorganization of the Building Construction Branch to permit the Department of Public Works to provide the best possible service to client departments in the building construction field. A detailed description of the reorganization of the Branch into five groupings of specialists can be found on page 38.

Also worthy of mention in the building construction field during the course of the year was the Department's contribution to the overall government Winter Works Building Construction Program. In this connection, some 144 contracts were awarded, representing almost twice as many as in any previous year. Part of the Winter Works program included the construction of 91 "revenue post offices" which, while standard buildings, are readily adaptable to the requirements of the various locations across Canada, usually areas of high unemployment.

In the area of northern construction, the Department was involved in a multi-million dollar building program at Frobisher Bay which involved mainly the construction of a new 28-bed hospital, a water treatment and sewage disposal plant, warehousing and roads.

In the Ottawa area, several important projects were begun during the year. A start was made on the new \$10 million National Library and the new \$9 million headquarters building for the Department of Agriculture at the Central Experimental Farm. In addition, planning advanced on the new National Museum building, construction of which is scheduled to begin during the coming year representing the first stage of the Museum complex.

As the Federal Government's landlord and housekeeper, the Department of Public Works remained active throughout the year in providing and maintaining accommodation totalling approximately 31½ million square feet of net usable space located in nearly 3,000 Crown-owned and leased buildings across Canada. Some indication of the extent of these operations can be gained from the fact that during the year under review almost 13,000 contracts valued at in excess of over \$4½ million were awarded for repair and upkeep operations alone.

The following brief descriptions of the main operating branches and divisions of the Department of Public Works provides a detailed account of the multitude of activities undertaken during a most successful year.

SECRETARY AND ADMINISTRATIVE SERVICES

The Secretary of the Department of Public Works has been given broad responsibility in two distinct areas. He is charged with responsibility under the Public Works Act for the execution of contracts and related documents. This area of responsibility is discharged through control of the contracting process from calling tenders, holding and administering securities to executing construction contracts. On the other hand, as Chief of Administrative Services, the Secretary is responsible for a wide range of services to other branches of the Department. It is possible, therefore, to define two major areas for which the Secretary is responsible.

The Tenders Section which reports to the Assistant Chief of Administrative Services is responsible for advertising and receiving tenders. This function involves preparing requisitions for newspaper advertisements, notifying senior officials of the Department of forthcoming tender calls, assisting in the opening of tenders, custody and administration of securities, maintaining records of bids received, securities and contracts awarded.

The Departmental Secretary is also responsible for a number of functions which exist to provide administrative services to the Department. The functions which now report to the Secretary are the Central Registry, Photographic Services, Forms Control, Equipment and Supply and Motor Vehicle Control. A new position has recently been established of Co-ordinator of Transcribing, Typing and Reproduction Services. The incumbent of this position will be responsible for directing and co-ordinating the transcribing and typing services within the Department.

ECONOMIC STUDIES BRANCH

The principal function of the Economic Studies Branch is to assess and make recommendations on proposed public projects from the economic point of view, particularly where capital outlays are involved. During the year, 750 such projects were referred to the unit and specific recommendations were made on each.

The Branch also assessed the prospective economic and population growth of a number of communities, including certain metropolitan areas, where provision of new or additional accommodation was being considered. This work complements the Branch's participation in the Treasury Board Advisory Committee on Accommodation Standards.

On-site surveys of individual harbours were made by members of the unit as required. The Interdepartmental Committee on Canadian Ports, on which the Branch is represented, investigated and recommended on a number of specific port questions.

The Branch was also represented on certain other interdepartmental committees such as that on Winter Works.

In addition, together with departmental engineers and officers of the Department of Fisheries, the Branch took part in a periodic on-site review with officials of certain of the provinces, regarding shore facilities required to support the fishing industry.

EMERGENCY PLANNING DIVISION

The federal Cabinet Committee on Emergency Plans, at the twenty-fifth meeting held on Friday, November 23, 1962, assigned to the Department of Public Works of Canada the responsibility for emergency planning in conjunction with

the Central Mortgage and Housing Corporation, where appropriate, for the following broad wartime functions.

1. Control of the use of all accommodation.
2. Provision of emergency housing, including associated utility services.
3. Federal-Provincial arrangements for the maintenance and construction of roads and road bridges.
4. Control of engineering and construction resources.
5. Maintenance, repair, reconstruction and construction of ports and harbours and inland waterway facilities.

From March to July, 1963, general concepts were worked out for each of the above emergency functions and were discussed during visits to each of the ten provinces, as well as with the federal departments and agencies concerned. Following consultation with provincial authorities, the Minister of Public Works, by November, 1963, had received general acceptance on the part of the provinces that with regard to the first four emergency functions, the Department of Public Works would be responsible for the preparation of detailed planning guides and procedures, while the provincial authorities would undertake the development of the necessary regional organizations and the conduct of such exercises and training required to bring them to a state of operational readiness with such federal advice and assistance as necessary.

The last wartime function listed above is primarily federal in nature and discussions are currently in progress with the federal Department of Transport, the National Harbours Board and the St. Lawrence Seaway Authority.

Preparation of Emergency Planning Manuals for each of the five departmental wartime functions has been started. Concurrently, further visits are being made to all provinces to discuss draft portions of the Manuals and to work out, in detail, the assignment of emergency functions to the appropriate provincial departments.

Pending the development of the regional emergency organization by the provinces, an outline central emergency government organization and the required readiness plans and emergency legislation were prepared during 1963 to provide for an interim state of readiness.

FINANCIAL SERVICES DIVISION

The responsibilities of the Division include the coordination and analysis of the departmental estimates, the development and implementation of accounting and budgetary control procedures throughout the Department, and the development and implementation of policies and procedures, on a consistent departmental basis, relating to contract administration.

The Division provides liaison with the Treasury Board, the Comptroller of the Treasury, and other Government departments and agencies insofar as financial matters are concerned, and departmental representation on the Treasury Board Advisory Committee on Contracts.

During the year, the Division was concerned with a number of special activities. Consideration was given to ways in which the financial control and accounting systems within the Department could be improved, with particular reference to applying the recommendations and principles of the Report on Financial Management of the Royal Commission on Government Organization.

The Division undertook the development of an improved system for administration and control of accounts receivable. It also participated in the development, in co-operation with Management Services, of a costing system for the Superintendent of Government Buildings, Ottawa. In connection with the assumption by the Department of new responsibilities at Churchill, Manitoba, and Whitehorse,

Y. T., the Division was responsible for establishing the local financial organization. Within the Department, the new Standard Form for Construction Contracts was introduced, effective April 1, 1963.

FIRE PREVENTION BRANCH

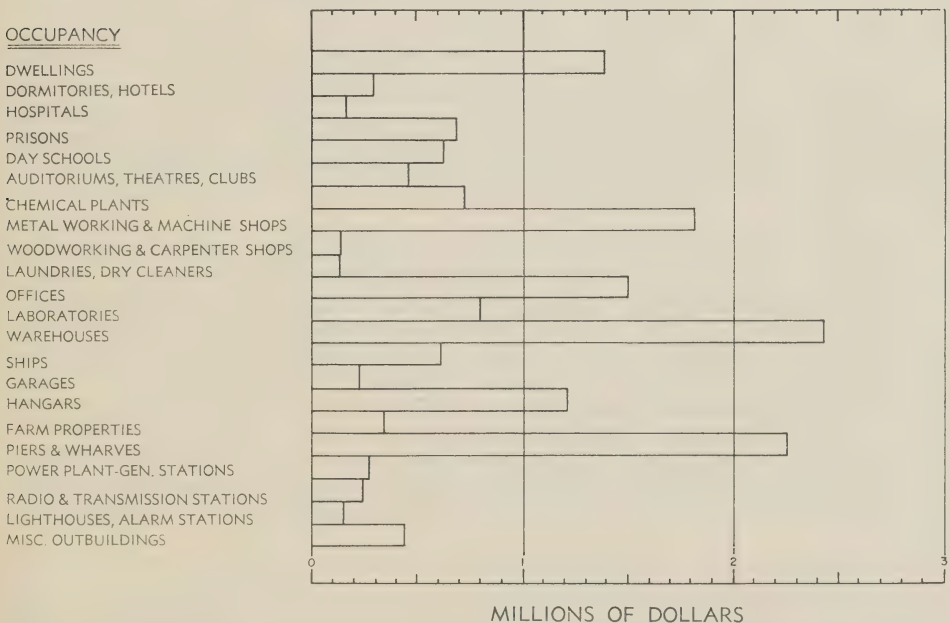
Although fire losses throughout Canada are increasing steadily year by year, the trend of the fire losses of those departments named in the Fire Prevention Regulations (P.C. 1960-50/1499) remain relatively constant despite the large annual increase in capital investment by the Federal Government.

The fire loss for 1963 totalled \$3,707,176 from 524 fires, compared with \$3,214,282 from 610 fires in 1962. The greatest proportion of the 1963 loss was due to a fire at St. Denis sur Richelieu, P. Q., in which butter in storage, valued at \$1,888,051, was destroyed in a privately owned warehouse.

The fire loss incurred by the Department of Public Works for 1963 amounted to \$472,832 from 93 fires. Three hundred and sixty-five fire reports and investigations were made by Branch staff.

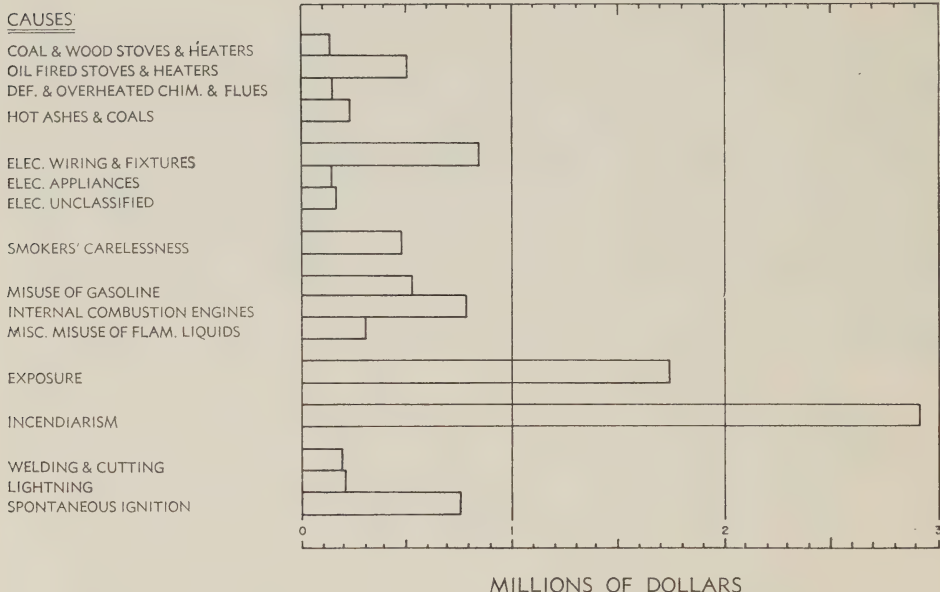
The principal locations and causes of fires for the latest 10 year period are shown in the following graphs: —

OCCUPANCIES * HAVING FIRE LOSSES OF \$100,000 OR MORE DURING 10 YEAR PERIOD 1954-1963 (EXCLUDING DND)



* OCCUPANCY REFERS TO SPECIFIC OCCUPANCY WHERE FIRE OCCURED RATHER THAN GENERAL OCCUPANCY OF PROPERTY - ie A MACHINE SHOP IN A PENITENTIARY WOULD BE CLASSED AS A MACHINE SHOP, NOT A PRISON.

CAUSES OF FIRES WHERE THE TOTAL FIRE LOSSES ARE \$100,000 OR MORE DURING 10 YEAR PERIOD 1954-1963 (EXCLUDING DND)



In order to maintain the program of employee instruction and training, 30 lectures and demonstrations in fire prevention procedures and the use of hand fire equipment were given to some 1200 employees. Over 1000 fire drills in federal buildings throughout the country were reported with well over 50,000 Civil Servants participating.

Annual Fire Prevention Contest entries increased from 207 in 1962 to 228 in 1963 reflecting the enthusiasm displayed by departments in fire prevention education practices. In the formal presentation ceremony held in the Senate Chambers, Mr. G. Roy McWilliam, Parliamentary Secretary to the Minister of Public Works, presented the top award, the Howard Green Trophy, to the late Honourable John R. Garland, Minister of National Revenue, on behalf of the Custom House, Victoria.

Fire protection Engineering requirements were determined for 230 new construction projects and 41 design specifications prepared for inclusion with the plans and specifications for tender. The Branch was represented on 14 take-over boards.

One hundred and eleven Engineering Survey Reports were made by Branch field staff on selected high hazard prestige and institutional buildings to determine the adequacy of their fire protection engineering design and related features. Under the administration of the Branch, many departments are carrying out self-inspection programs. Provincial and municipal authorities also assisted in inspection programs by submitting 416 reports. Technical assistance and a \$5,000 Grant was again

given to the Joint Fire Prevention Publicity Committee of the Canadian Fire Marshals and Fire Chiefs.

Four additional fire protection engineering standards and two technical information bulletins were published to assist architects, engineers and others responsible for the design, construction and maintenance of Government property. Interest in these publications is now world-wide with enquiries having been received from the United Kingdom, Israel and Australia.

A new 30 minute, 16 mm fire prevention film in colour, "They Called it Fireproof", sponsored by the Department and produced by the National Film Board with technical assistance co-ordinated by the Branch, was released in 1962 and has received national acclaim. It was produced in both French and English editions and permission has since been given for a Spanish language translation for use in South America. Greater use continues to be made of the Branch Fire Prevention Film Library. Over 1350 film bookings were made with 539 fire prevention training programs instituted.

The 42nd Annual Report of the Dominion Fire Commissioner giving a statistical analysis of a decade of fire losses in Canada was prepared and published in a bilingual edition. Three thousand copies were distributed to federal, provincial and municipal agencies, foreign governments and reference libraries.

A member of the Fire Prevention Branch serves as the Fire Marshal of both the Yukon Territory and the Northwest Territories to administer the Fire Prevention Ordinance of each Territory. The Fire Marshal and his Deputy, inspected a total of 24 communities and made 255 building inspections. Fire protection engineering requirements were determined for 24 federal and privately owned buildings of public assembly. Two Fire Officers' Training Courses were conducted, one at Whitehorse, Y. T., and the other at Fort Smith, N. W. T.

INFORMATION SERVICES DIVISION

This was an active year for the Department's Information Services Division which, through the District Offices, was responsible for the organization and control of between 40 - 50 ceremonial openings of public buildings, and other government structures.

During the period under review a total of 250 press releases were issued announcing the award of contracts for Public Works' projects. Numerous requests for information from the press media and the general public were handled by the division.

Information Services continued to publish the "Dispatch", the staff magazine of the Department and to operate a press clipping service covering 35 daily newspapers and 30 monthly magazines.

The Division's Parliamentary Returns Section provided written answers to 250 questions which appeared on the Order Paper of the House of Commons during the First Session of the 26th Parliament. In addition numerous answers to oral questions asked from the floor of the House were supplied.

The Departmental Library, a responsibility of the Division, averaged 325 loans a month and the individual circulation of periodicals amounted to 2,200 monthly. The library now contains some 17,500 catalogued books and periodicals mainly of a technical nature, available to the Department's staff.

LEGAL SERVICES

The Legal Services Division is responsible for furnishing legal advice to and performing legal functions for the Department.

During the fiscal year the Division processed a total of 429 approvals under the amended Navigable Waters Protection Act, the Railway Act and the National Energy Board Act, excluding those not approved by the Minister.

Submissions directed to Treasury Board and Privy Council by the Department totaled 909 during the year.

Formal contracts, involving expenditures in excess of \$5,000.00, prepared by this Division totaled 779, which includes 428 contracts for engineering works, 183 for architectural works (new construction) and 110 contracts for maintenance and services. At the present time, approximately 70 contracts are being processed by this Division, the majority of which relate to the construction of smaller Revenue Post Offices.

Two hundred and ninety-six title documents were received and filed in the Law Records Registry, representing individual parcels of land conveyed to the Department. In addition, the Crown acquired possession of 632 properties by means of new leases and renewal of existing leases.

During the year, a total of 139 individual leases of Crown controlled property were granted to individuals or corporations and approximately 66 properties were declared surplus to the requirements of the Department and were transferred for disposal to Crown Assets Disposal Corporation.

As a result of a survey of the work of the Division, conducted by the Management Analysis Branch certain functions presently being carried out by the Legal Services Division are in the process of being transferred to other Divisions of the Department.

Since the award of contracts falls within the jurisdiction of the Secretary of the Department it was felt that the preparation of formal contracts and related matters should also fall within his jurisdiction. The responsibility for the preparation of such contract documents are, therefore, being assigned to the Secretary, and the staff formerly employed in this work in Legal Services transferred to his office.

The survey also revealed that the greatest proportion of leases prepared by Legal Services consisted of the simpler type of leases and renewals of lease prepared on Departmental printed forms. It was felt that the preparation of such documents should be more appropriately made the responsibility of the local office manager, subject to review by the Accommodation Division of Property and Building Management. This suggestion has been adopted and accordingly, Legal Services is being relieved of the preparation of such lease documents.

PERSONNEL BRANCH

The Establishment of the Department for the current fiscal year embraced a total of 9,208 positions. This represented a reduction of 194 positions from the approved establishment of the previous year. In keeping with the continuing policy restricting recruiting, each vacancy was reviewed as it occurred and only those considered essential were retained. The negotiation of additional cleaning contracts also helped to account for the decreasing staff requirements.

The following graph illustrates over a period of ten years, the early growth of personnel resulting from an increase in the services provided by the Department and from the assumption of responsibilities for the Trans-Canada Highway program as well as other road building programs. A progressive decrease from the high point reached in the 1961-62 fiscal year is apparent.

Action continued during the year to implement the reorganization of the Superintendent, Government Building unit which had been approved the previous year. This involved the classification of positions and the conduct of numerous promotional and open competitions. Consistent with current recruiting practices, a large number of promotional and open competitions were conducted by the Department and by the Civil Service Commission to fill vacancies throughout the service. The Personnel Branch provided departmental representation at all Appeal Boards established by the Civil Service Commission.

YEAR	FULL TIME	PART TIME	SEASONAL	TOTAL
1953-54	4039	3036	646	7721
1954-55	4360	3153	642	8155
1955-56	5151	2670	723	8544
1956-57	5636	2504	802	8942
1957-58	5560	2333	792	9085
1958-59	6387	1962	815	9164
1959-60	6540	1853	840	9233
1960-61	6548	1865	852	9363
1961-62	6675	1854	893	9420
1962-63	6661	1825	920	9406
1963-64	6609	1778	821	9208
	500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10,000			

In the field of organization and classification, surveys of several branches and district offices were initiated with the Civil Service Commission. The classifications of approximately 300 positions were approved and action will continue in respect of several hundred more. Organizational surveys, preliminary to classification studies, have been initiated or are being prepared for the Property and Building Management Branch. It is anticipated that district offices of this branch will be included. It is hoped that by the end of the next fiscal year organization and classification surveys will have been completed for all branches and operational units of the Department.

Preliminary studies toward the development of work measurement standards have been carried on in consultation with the Management Services Division of the Department. Completion of this project will result in more effective utilization of staff.

The training and development program was curtailed somewhat due to shortage of qualified staff. However, a number of supervisory and skills training programs were continued. In addition, the branch organized and directed the attendance of departmental staff at training and development courses sponsored by the Civil Service Commission, the American Management Association and universities. Finally, arrangements were made to give some specialized training in the functions and operations peculiar to the Department of Public Works for 30 officials of foreign governments visiting Canada under the auspices of the External Aid Program.

A Safety Officer was designated during the year and he has made considerable progress in the analysis of statistical data relating to accidents within the Department and in the preparation of a program of accident prevention. It is expected

that this program will be introduced throughout the Department by the end of the next fiscal year.

The Personnel Branch continued to provide the Secretariat for the Suggestion Award Plan as well as for the various fund raising campaigns approved for canvass within the Department, and the Canada Saving Bond drive. Participation by the employees in all these activities continued at a very high level. In particular, under the Suggestion Award Plan, 15% of the suggestions received were approved, involving 35 awards resulting in an estimated total dollar saving of \$12,300. Also during the year, additional authority was granted to the Suggestion Award Committees in district offices. Increasing employee participation and quicker processing of suggestions are expected during the coming year.

Shortages of qualified professional and technical staff continued through the year under review. Difficulties and delays in filling vacant positions hampered the most effective performance of programs in all branches of the Department.

PURCHASING AND STORES BRANCH

In accordance with Canadian Government Regulations, the Branch purchases requirements for the departmental operational branches so that they may be provided with building maintenance supplies, construction materials, office and residential furniture and furnishings, fuel, and many other items, to carry out their functions.

These purchases are controlled by available finances, as illustrated by the following resume:

1. Maintenance Supplies

Building Materials

Specialized Equipment, etc.

Office furniture and furnishings requisitioned by all federal departments

Payment from funds allocated by branch originating requisition

•

Residential furniture and furnishings for:

Rideau Hall and The Citadel

Prime Minister's Residences

Northern housing under the Department's jurisdiction

Furniture and furnishings for the House of Commons and Senate

Office furniture and furnishings for departments in London, Eng., where accommodation is the responsibility of the Department of Public Works

Safes and Security cabinets

Shelving

Other miscellaneous furniture and equipment

Funds are included in the departmental estimates. These items are the property of this Department which assumes responsibility for their repair and upkeep. Issues are controlled by regulations and procedures conforming with Treasury Board direction.

Federal heating requirements of:

Coal

Oil

Propane Gas

Natural Gas

are purchased provincially by public tender.

Fuel for dredges

Gasoline and kerosene requirements

Payment is effected by the branch, department, or agency which requested the purchase.

Approximately 6,500 requisitions, involving purchases amounting to \$8,335,000., were processed by the Branch's Headquarters Purchasing Section. Canadian manufactured goods comprised \$8,000,000. of these purchases. Similarly, a large number of local purchases were placed by district offices throughout Canada and in London, England.

The increase in headquarters purchases over 1962-63 is attributable to an increase in special-use items to meet requirements of federal conferences, the federal elections, parliamentary requisitions, etc.

A total of 16,310 requisitions were received from 113 varied sources, including 75 federal departments and agencies.

Major contracts were awarded during the winter months to coincide with the Department's winter construction policy.

Bulk purchasing was extended to more commodities during the year and the tendering of unit prices valid for six to twelve months was introduced. It has also been decided to stock more items on which increased demand warrants warehousing.

Purchases amounting to over \$50,000. were made for departments or agencies on a recoverable basis, resulting in the preparation of 237 accounts recoverable vouchers.

Approximately 300 bilingual specifications and standards with drawings, published by the Branch in co-operation with the Departmental Specification Committee on Materials and Equipment, now govern quantity purchases. Specifications of the Canadian Government Specifications Board are also used. Plant and shipment inspection of furniture and equipment by the staff of the Specification Section, and tests conducted by the Departmental Testing Laboratories, ensure that articles purchased conform to these specifications.

Supply sources are investigated prior to their acceptance so as to avoid the submission of tender samples which impede order deliveries and increase costs. This check on the performance and capabilities of potential suppliers also ensures that a firm does not attempt to accept more orders than it is capable of manufacturing.

To ensure that all departments and branches across Canada are afforded the best possible disbursement services, this Branch has large area stores at Ottawa, Toronto and Montreal; and lesser storage facilities at St. John's, Nfld.; Halifax; Saint John, N.B.; Quebec City; Winnipeg; Saskatoon; Edmonton and Vancouver. The operation of these small units is the responsibility of district officials with policy direction and guidance being given by headquarters officials. The three large area stores are under the direct supervision of the Branch.

Furniture and furnishings currently held by federal departments, etc., according to inventory records, is valued at approximately \$46,107,000.

The Branch held 20 Board of Survey meetings to consider applications for write-off and 280 Reports of Surpluses were submitted to Crown Assets Corporation for disposition. A total of 369 write-offs from districts and headquarters were processed during 1963-64.

PROPERTY AND BUILDING MANAGEMENT BRANCH

The Administrative and functional roles of this Branch have grown considerably in its 9-year history, due, mainly, to the establishment of improved management policies and practices. These, in turn, have brought added responsibilities typical of which are the following tasks assumed by the Branch during the year under review: -

On September 1, 1963, this Branch was given responsibilities for the administration, operation and maintenance of the former U.S. Air Force (SAC) facilities at Frobisher Bay, N.W.T. and for the management for the housing pool at this location.

The management of the entire establishment at Fort Churchill, Manitoba, was officially transferred to the Department of Public Works on April 1, 1964. There are involved, approximately 500 persons, 1,300,000 square feet of space, roads, water, sewers, power and heating plants, residential accommodation, victualling, snow removal, fire protection, and in short, everything associated with the functioning of a complete community. In view of the timing involved, the project was handled as a crash program. Negotiations are in progress with the Provincial Executive regarding the future jurisdiction over this community.

The entire Federal establishment at Fort Pepperrell, St. John's, Newfoundland was transferred to the Department of Public Works on April 1, 1964. Again, this has required considerable advance planning. The establishment involves 147 buildings and the transfer involves 184 civilian personnel. Also transferred are motor transport and other vehicles and the former U.S.A.F. dock in the harbour. All arrangements for the transfers were made during the year under review.

Effective April 1, 1964, the Department officially accepts the responsibility for the maintenance and operation of the North West Highway System. The primary role of road operation and maintenance rests with the Development Engineering Branch of the Department, but Property & Building Management Branch will manage all accommodation associated with the System. This includes housing, maintenance and administration accommodation from a point some 83 miles from Dawson Creek to the Alaska border including that part of the Haines Highway which is in Canadian territory. The operation necessitates the creation of a new District Office at Whitehorse, N.W.T., which will handle all Public Works functions for the System and Yukon Territory.

The magnitude of these Branch functions can be judged by the fact that the takeover covers the acquisition of some 500 individual housing units and many public buildings. In addition, a number of subsidiary services, previously carried out by the Army, are being assumed, such as schooling at isolated points, ambulance service along the highway and public transportation systems in Fort Nelson and Whitehorse.

As its largest single responsibility, the Branch administers the DPW pool of accommodation provided in nearly 3,000 crown-owned and leased buildings of general purpose type for assignment to Federal Government departments and agencies. The total space involved is approximately 31½ million square feet of net usable accommodation distributed geographically as follows:

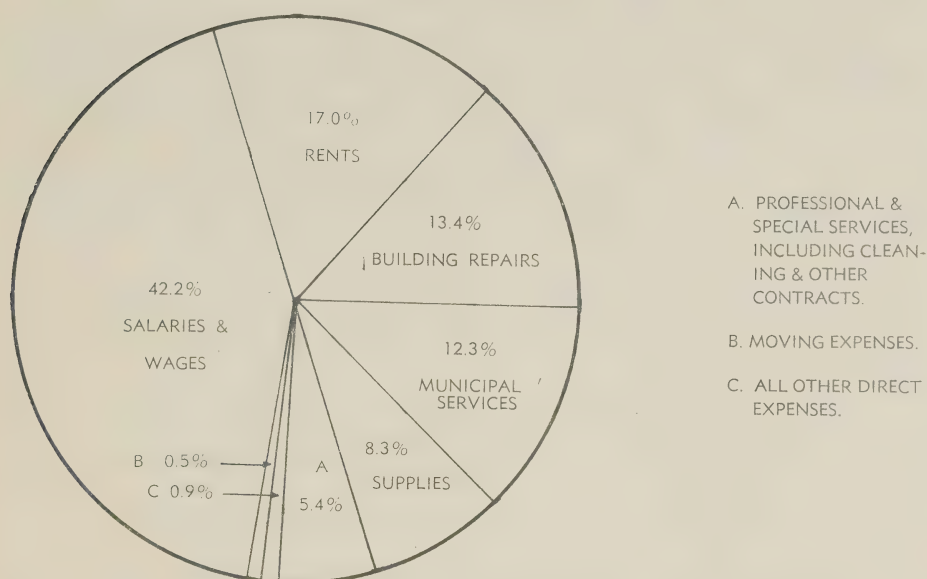
NET USABLE AREA

	Crown-owned bldgs.		Leased premises		Operating cost including rents \$
	NO.	SQ. FT. (1000's)	NO.	SQ. FT. (1000's)	
Newfoundland	89	479	40	34	788,632.28
Nova Scotia	93	761	48	155	1,389,816.12
Prince Edward Island	11	160	5	2	237,519.86
New Brunswick	79	760	34	39	994,741.61
Quebec (except Hull)	327	4,326	264	797	6,891,802.43
Ontario (except Ottawa)	368	5,339	286	900	7,895,766.35
Manitoba	90	1,328	71	113	1,639,820.40
Saskatchewan	148	1,012	116	78	1,420,746.33
Alberta and N.W.T.	133	1,341	143	198	2,511,130.96
British Columbia and Y.T.	135	2,386	112	212	3,193,268.34
London, England	1	105	4	5	442,134.62
U.S.A.	—	—	3	6	44,540.22
Other Foreign	—	—	1	1	6,139.91
Ottawa-Hull	124	8,911	157	1,911	18,810,071.63
	1,598	26,908	1284	4,451	46,266,131.06

The direct expenses shown above have been disbursed by the Operations Division of the Branch for maintenance, alternation and general housekeeping services. Funds expended above are distributed for purposes shown, on a percentage basis, in Table 2.

TABLE 2

DISTRIBUTION OF DIRECT EXPENSES BY KIND ON A PERCENTAGE BASIS



The multiplicity and distribution of repair and upkeep operations are shown in Table 3.

TABLE 3

REPAIR AND UPKEEP CONTRACTS AWARDED 1963-64 (Values shown in thousands of dollars)

DISTRICT	UP TO \$1500		\$1500-\$5000		OVER \$5000		TOTALS	
	NO.	Value	NO.	Value	NO.	Value	NO.	Value
		\$		\$		\$		\$
St. John, NFLD	580	55	16	45	1	5	597	106
Charlottetown, P.E.I.	15	8	6	14	—	—	21	22
Halifax, N.S.	700	85	9	23	3	21	712	129
Saint John, N.B.	540	71	10	28	2	13	552	112
Quebec, P.Q.	1,099	110	21	62	6	48	1,126	220
Montreal, P.Q.	211	84	33	83	16	146	260	313
Ottawa-Hull	3,760	921	162	438	42	356	3,964	1,715
Ottawa District	174	54	19	45	4	52	197	151
Toronto, Ont.	1,507	200	27	66	15	187	1,549	453
London, Ont.	248	60	12	37	9	81	269	178
Winnipeg, Man.	550	84	13	35	3	44	566	163
Saskatoon, Sask.	590	119	12	29	2	25	604	173
Edmonton, Alta.	1,450	116	16	48	17	288	1,483	452
Vancouver, B.C.	850	162	20	60	9	134	879	356
TOTALS	12,274	2,130	376	1,013	129	1,400	12,779	4,543

The total direct expenditures are influenced by many factors not the least of which is the fact that during the year some ninety new buildings, constructed by the Building Construction Branch, were turned over to this Branch for operation and maintenance.

Further economies by means of reduction in the average square foot cost of cleaning buildings were achieved during the year. Experience has proven that it is more economical to arrange for the daily interior cleaning of buildings by private contractors and this practice has been further extended, as the departmental cleaning staff decreased by normal separation.

The simultaneous sound and translation system in the House of Commons was improved to give additional coverage in the Chambers and in the caucus rooms in the West Block. For the first time, the Department has used portable transistorized electronic sound systems, which provide service as occasion demands in almost any room without permanent installations.

In May, 1963, the Branch made a vital contribution to the success of the NATO Conference, held in Ottawa, by providing accommodation, furnishings and other facilities to delegates of 15 countries involving some 1,200 persons in all.

During the year, the new Department of Industry was successfully housed in conjunction with the Department of Defence Production in an additional 90,000 square feet of new accommodation specially leased for the purpose. This was due to the fact that crown-owned space of this order was unavailable in the required vicinity.

Arising out of a continuous review by the Accommodation Division of the Branch, in collaboration with district officers and the user-departments, the Division recommended, during the year, new construction or major alterations at 65 locations involving 809,000 square feet of net accommodation. Additionally, around 160 locations for the construction of small post offices were selected for inclusion in special winter works programs.

Continued progress was made in developing standards of accommodation and officers of the Division participated in committee studies of such diverse needs as offices, laboratories, hospitals, schools, penitentiaries and other reform institutions, stores, workshops and housing. These studies involved approximately 500,000 square feet of net space now in various stages of planning or construction.

As in the past, where vacant space in Federal Buildings cannot be used by any Government service, every effort is made to rent it to outside parties on a commercial basis. Revenue of \$338,206 was secured during 1963-64 from this source. The efficient employment of the space administered by the Branch is demonstrated by the gratifying occupancy rate now prevailing of over 97%.

Crown-owned housing under the administration of the Branch yielded \$1,510,338 in rentals during the year. Public telephones in Federal Buildings not only provided a necessary public service, but also a total commission revenue for the Crown of \$23,744.

The Lands Division of the Branch acquired 266 properties by purchase or expropriation at a total cost of \$5,284,029.83. At the year's end, some 160 other properties were in various stages of acquisition for current and future construction programs.

Development of the new inventory of real property also proceeded. Returns from the major property holding departments are being received regularly and compilation of the records has begun. It is anticipated that over 35 departments and agencies will have contributed to this inventory when its assembly is complete. The cabinet decision to create this central property record was recommended by the Royal Commission on Government Organization.

HARBOURS AND RIVERS ENGINEERING BRANCH

The Harbours and Rivers Engineering Branch carried out works along the Pacific, Arctic and Atlantic coasts and in all provinces and territories of Canada with the exception of the Yukon. These works included the construction and repair of wharves, breakwaters, haulouts, launching ramps, protection works; and the maintenance and improvement of navigation channels through dredging.

The Branch also continued to operate major drydocks at Esquimalt, B.C., and Lauzon, P.Q. as well as minor ship repair facilities at Selkirk, Man. Control dams on the Upper Ottawa River and a lock and dam on the Red River were also maintained and operated. Dredging at some 426 locations was undertaken under the supervision of the Branch, 70% of which were carried out by contract and 30% by plants owned and operated by the Branch.

During the year under review, planning on marine projects overshadowed actual field construction, particularly with regard to the development of new harbours and major improvements in existing harbours. Construction on a number of larger works, begun in previous years, is nearing completion, while planning for a number of major developments for 1964 was initiated.

The modernization of St. John's harbour, Newfoundland, continued and most of the major contracts were completed during 1963. This redevelopment project will be completed in 1964 at a total cost exceeding \$17,000,000. Many new deep sea berths have been provided with extensive backup, handling, storage and transfer facilities. The main cargo pier has been in operation for some months now and its initial use has exceeded expectations. This harbour development will provide a great impetus to the economy of the entire Avalon Peninsula due to the fact that transportation costs of practically all consumer goods will be substantially reduced.

Construction on a number of other East Coast harbour improvement projects continued at Charlottetown, Borden, Sydney and Dartmouth, the costs of which exceeded one million dollars. Some of these works are being undertaken for Departments of Transport, National Defence and Mines and Technical Surveys.

Ferry dock construction was begun at both Rivière du Loup and St. Simeon on the Lower St. Lawrence River.

The first major program of construction of facilities in Great Lake ports to permit maximum use of the St. Lawrence Seaway has been completed. The works and terminals at Toronto, Port Credit, Hamilton and the Lakehead which were completed in recent years, are now in full operation. At Hamilton, the first construction contracts were begun for a new multi-stage development at the St. Catherine Street location.

On the West Coast the Alaskan Ferry Terminal at Prince Rupert was completed and large scale harbour improvement work was initiated at Westview.

Planning of developments for an impressive number of harbours, both old and new, advanced during the year. On the East Coast, seaborne transportation to Canada's two Island Provinces is vital, and plans for an expansion of harbour works to facilitate the increasing movement of goods and people are now on the drafting boards. Studies are being carried out by the Branch for new terminal facilities at Digby, the Nova Scotia terminus of the ferry service across the Bay of Fundy from Saint John, New Brunswick.

The development of a base metal industry in northern New Brunswick and the associated resultant industrial complex will require the development of deep draught harbour facilities along the North Coast of New Brunswick.

The development of the production capabilities of the newsprint industry in the Lower St. Lawrence-Gaspe Regions will require the expansion of harbour facilities. Investigations have been carried out at a number of sites; model studies

have been made and plans prepared. It is expected that work will be started during the next fiscal year.

The first year of operation of the revolutionary-designed breakwater constructed at Baie Comeau has proven its value. This perforated wall type of structure, developed by the National Research Council at the request of the Department, has caused considerable interest in many countries of the world.

The Department called for tenders for the construction of a unique ice control structure to be built across the St. Lawrence River for the protection of the 1967 World Fair Site. This structure, costing approximately \$13,000,000., is to be completed by the end of 1965.

During the year, the Branch continued its efforts to improve both the design of structures and the methods of construction. Engineers of the Branch worked closely with research officers of the National Research Council in studies of marine works and harbour improvements. One of the most extensive hydraulic model studies undertaken for the Department was of the shore in the vicinity of Rustico, P.E.I. where the channels and beach areas are in an unstable condition. This investigation was sponsored jointly by the Department of Public Works and the Department of Northern Affairs and National Resources. The problem was to design a crossing for a new bridge across the harbour entrance without prejudice to the maintenance and improvement of harbour works.

At the request of the Department, the hydraulic laboratory of the National Research Council constructed a movable bed hydraulic model for studying the effects of waves, tide and littoral drift. Model studies were also carried out for harbour improvements at Codroy, St. Brides and Branch in Newfoundland, where problems of protection and siltation exist. The National Research Council also investigated proposed harbour structures for Dingwall, Pleasant Bay, Inverness and Saulnierville in Nova Scotia; Caraquet and Belledune Point in New Brunswick; and Chandler, New Richmond, Matane and Gros Cacouna in Quebec.

The Department also initiated studies and investigations to determine the wave characteristics from existing wind data. A statistical method of analysis of this data was devised and led to the derivation of curves relating frequency in intensity of waves to the probability of currents. This procedure has already been applied to large harbour projects planned for the East Coast and has proven invaluable in arriving at balanced and rational designs.

Engineers from the fourteen district offices carried out many thousands of investigations into possible projects, a considerable number of which will result in the undertaking of new works to provide a service to the public and assist in the development of the economy generally.

DEVELOPMENT ENGINEERING BRANCH

The completion of the 1963-64 fiscal year marks the 10th anniversary of the Development Engineering Branch.

The activities of this Branch which were initially in the location, design and construction of the Trans-Canada Highway as well as bridges laboratory and field testing services related to construction, have greatly expanded over the years. They now encompass a much wider scope, including the engineering and construction of highways and roads throughout the National Parks, all development roads in the Yukon; Northwest Territories; area development works; water supply; sewage disposal schemes; emergency planning related to roads and bridges; various special undertakings such as construction of seismic array stations and radio-active fallout surveys.

Laboratory and field testing has continually increased in the specialized testing techniques and services in order to accommodate the needs of expanded construction activities and modern advances in technology.

The Branch now undertakes engineering and construction projects on behalf of, and provides testing services for many other federal departments and agencies.

Trans-Canada Highway

The branch administers the Trans-Canada Highway Act which provides for the construction of a two-lane, all-weather, paved highway with costs shared by the Federal and Provincial Governments. Full details of the 1963-64 progress of construction, commitments accrued and payments made to each province under agreements and details of construction through the National Parks may be found in the annual "Report of Proceedings under the Trans-Canada Highway Act".

Macdonald-Cartier Bridge

Construction continued during the year on the Macdonald-Cartier Bridge between the Cities of Ottawa, Ontario, and Hull, Quebec. Significant aspects of this project are the participation by the Federal and the Ontario and Quebec Provincial governments, the engagement of three engineering consulting firms appointed as a joint venture and named Macdonald-Cartier Bridge Consultants, and lastly, the size of the project and the construction techniques being adopted.

Work started in February, 1963 and construction of the piers and abutments began in May 1963. They were virtually completed that year. The substructure construction method was unusual, involving fabricating concrete pier caisson with steel and wood cofferdams on a launching barge. The barge, towed to mid-river, was tipped by means of flooding internal compartments to one side. Each caisson slid from the barge to a floating position and was then guided to its final position.

Erection of the steel superstructure commenced in September 1963 and the first span was completed in October. This span was then floated across the river and positioned on the Ottawa abutment and Pier No. 4. A second (permanent) span was then erected between the Hull abutment and Pier No. 1.

The substructure was virtually completed by the end of the 1963 construction season and the fabrication of the structural steel twin girders to span between Piers 1 to 4 was also well under way.

It is anticipated that the bridge (and approaches, now under construction by the provincial governments), will be completed and opened to traffic by October 1965.

Other Federal Bridges

The Department has maintenance and operation responsibilities for certain federally-owned bridges on which a total of \$618,000 was expended during 1963-64. Maintenance items of significance included: rail replacement on the New Westminster railway bridge over the Fraser River in British Columbia; replacement of timber decking on the Matapedia Interprovincial Bridge between New Brunswick and Quebec; painting of structural steel on the Perley Bridge, Hawkesbury and the Pembroke-Allumette Island bridge between Ontario and Quebec and the Lasalle Causeway bridges at Kingston. At Kingston the mechanical parts of the operating bascule bridge were inspected and repaired.

Northumberland Strait Causeway

Progress is continuing on the planning of a causeway and associated structures to cross the Northumberland Strait joining Prince Edward Island to the mainland of New Brunswick.

In recent years, the ferry facilities between Prince Edward Island and the Mainland have been expanded and modernized but the great increase in automobile and truck traffic has indicated a need for improved facilities. The first

step was in 1956 when the Federal Government undertook an economic study and a preliminary test boring program to determine the local availability of suitable rock in the event of the construction of a causeway. During 1958-59, a full scale survey was undertaken by the Department of Public Works with specialized assistance from other Government Departments. In addition, a firm of Consulting Engineers was engaged to produce an overall report on the feasibility, including cost estimates, of a proposed crossing. Based on the results of these feasibility studies, the Federal Government took a further step in December 1962 by entering into an agreement with Northumberland Consultants Limited to carry out the preliminary studies, surveys and investigations necessary for the preparation of a comprehensive report on all economically feasible types of crossing.

During the 1963 season a program of overwater core drilling and seabed sampling was carried out along the proposed centreline. The core recovery from this program was excellent, averaging 98%. A seismic survey was also conducted during 1963 to determine the bedrock profile and thickness of overburden along the proposed line of the crossing. The results of this survey are presently under study.

Investigations have been carried out during the past year to ascertain the availability of local materials for the possible construction of a full or partial causeway. All sources of rock, bulk fill and concrete aggregate within economic distance of the site were examined in detail.

While much academic work has been done on ice pressures, storm surge, wind set-up and wind-generated waves, the need for a model study became apparent, and a \$55,000 scale model of Northumberland Strait has now been constructed. Tests will be conducted on the tidal model during the coming year in order to provide information necessary to assess changes in erosion and siltation in harbours and other critical areas in the Strait; and changes in ice movement in the vicinity of the crossing.

Investigations carried out during the first phase of this study have indicated that the problem of ice in Northumberland Strait will prove the most difficult to solve. In this connection observation and photographic reconnaissance flights were made during the past winter and spring, flying predetermined patterns over Northumberland Strait to record ice formations and movement. A test panel was installed on the Borden breakwater to measure the pressure exerted by landfast ice during spring breakup.

These studies and the resulting planning and design will be continued during the 1964-65 fiscal year.

Northwest Highway System

One of the major highlights of the year was the decision to transfer to the Department of Public Works the responsibility for the maintenance and operation of the Northwest Highway System. This system encompasses 1,220 miles of the Alaska Highway in Canada, the 112 mile Haines Cut-off road in Canada and a number of airfield access roads.

The Alaska Highway was constructed during 1942 by the Public Roads Administration of the United States Government. In 1945 the Canadian Army assumed responsibility for the portion of the Highway in Canada. At that time, the military significance of this system was of over-riding importance. Since then, civilian requirements have become increasingly significant while the military importance has diminished.

As a result, the Cabinet approved on October 2, 1963, a recommendation of the Advisory Committee on Northern Development that effective April 1, 1964, responsibility for the system be transferred from the Department of National Defence to the Department of Public Works.

Since October 1963, the Department has made a full evaluation of this undertaking, has formulated its organization, staffing and material requirements and has progressively been effecting the takeover in detail. This includes the transfer of all the maintenance and operation responsibilities from the Canadian Army, the transfer of civilian staff and arrangements for the seconding of key military personnel, as necessary, to maintain continuity and allow time for the recruitment of staff during a phase-out period.

The Haines Cut-off Road connects the seaport town of Haines, Alaska with the Alaska Highway at Haines Junction about 100 miles northwest of Whitehorse. Of its total length of 159 miles, 42 miles are in the Alaskan panhandle, 52 miles in British Columbia and 65 miles in the Yukon.

There are oil-pipeline pumping stations at mile 48 and mile 94. The road to these pumping stations from the port of Haines at one end and from Haines Junction at the other, has been kept open throughout the year for a number of years without undue difficulty. However, the heaviest snowfall and worst drifting occurs in the intervening section between mile 48 and mile 94. In the latter part of 1963 therefore, Canada reached agreement with the United States and the Department of Public Works was authorized to negotiate with the State of Alaska for the rental of the essential equipment to keep the entire road open throughout the year on an experimental basis for a period of one year.

Fallout Survey, Alberta

During 1961, at the request of the Emergency Measures Organization, the Branch organized and undertook a survey of all federally-owned buildings across Canada to determine the basement areas which provided acceptable protection against radioactive fallout. Because of the experience gained during this undertaking, the Emergency Measures Organization has requested this Department to undertake a further survey during 1964 to determine the amount of fallout protection available to the public in the Province of Alberta and through this, to establish techniques which could be applied to a possible future national survey. The organization and implementation of the 1964 survey has been assigned to this Branch, and during the months of February and March plans and procedures were formulated for the necessary field work to be under way by mid-May. It is estimated that the survey will require three to four months to complete and that the results will be available by the fall of 1964.

National Parks

Work proceeded, during the year, on behalf of the Department of Northern Affairs and National Resources on highway and road construction programs throughout the National Parks and in the Northwest and Yukon Territories.

In the National Parks, work continued on the final stages of the Banff to Jasper and Banff to Windermere highway construction, as well as on the Medicine Lake — Maligne Lake Road and the Jasper-Edmonton Road from Jasper to the Jasper Park east entrance, the Chief Mountain Highway in Waterton Lakes National Park and an access road at the Elk Island National Park entrance.

In Prince Albert National Park, work continued on the Waskesiu Scenic Drive, and in Riding Mountain National Park, the Aggassiz Ski Hill Road was virtually completed.

In the east, repairs were carried out to the timber Coverhead Inlet Bridge in Prince Edward Island National Park. Severe damage to this structure by storms and ice flows during the past winter have resulted in plans for its replacement by a reinforced concrete bridge during the coming year.

In Terra Nova National Park a contract was awarded for construction of a road to connect Eastport to the Trans-Canada Highway. This project was approx-

imately 30% complete by the year's end and is scheduled for completion by the fall of 1964.

In addition to the above construction projects, the Branch was engaged in numerous studies and planning projects in the National Parks. Throughout the western and maritime parks, evaluation of pavements were achieved through Benkelman Beam tests. In the Western National Parks, surveys and planning were undertaken for the Lower Lake Louise and Maligne Lake Developments Access Roads to Mount Norquay, Mount Whitehorn and Mount Revelstoke, and a traffic study of the Banff area.

Northwest and Yukon Territories

Work continued on the location survey for a road from Fort Providence to Fort Simpson on the Mackenzie River, thence to Fort Nelson on the Liard River. The Mackenzie Highway reconstruction was completed. Two clearing and grading contracts as well as contracts for the construction of four bridges were awarded for a road between Hay River and Pine Point.

The Canadian National Railways, under agreement with the Department of Northern Affairs and National Resources, constructed the substructure of a combined highway-railway bridge at the commencement of the Hay River — Pine Point Road. The highway superstructure is scheduled for construction by the Department next year. A contract for clearing a common highway-powerline right-of-way between Pine Point and Fort Smith was awarded early in 1964.

In the Yukon Territory, work continued on the construction of the Watson Lake-Ross River Road with the award of a two-year contract for construction of an additional 77 miles. Location survey work was also undertaken towards extending the Flat Creek-Chapman Lake Road — now called the "Dempster Highway". A gravelling contract was also awarded to cover 80 miles of the Nahanni Range Road. Finally, location survey work was completed for 100 miles of road between Ross River and Carmacks.

Miscellaneous Projects

Under the broad category of miscellaneous projects, the Branch undertakes planning, surveys, design, contract administration, contract supervision and engineering inspection on works for other branches and departments in the fields of highways, access roads, structures, parking facilities, site developments and utility services. The volume of these works has progressively increased over the past three years and activity during 1963-64 included projects in each of the provinces and northern territories.

Of special significance was the activity in the Northwest Territories where work continued on the construction of a Seismic Array and Long Period Seismic Vault in the Yellowknife area on behalf of the Department of Mines and Technical Surveys. There are only a few of these Arrays in the world and the one at Yellowknife is of major importance since it is located in an almost ideal area to record earthquakes from the west coast, Japan, West Indies and elsewhere — 2,000 miles or more away.

The Branch undertook a major engineering role in the restoring of essential facilities, services, repairs and reconstruction following the 1963 spring floods at Hay River and Fort Simpson. It also was responsible for all engineering studies and construction relating to roads, water and sewage services in the establishment of a new subdivision at Hay River.

Assistance was given to Canadian National Telecommunications in the location of a landline to Inuvik and to Department of Northern Affairs and National Resources in the layout of a water supply at Rae and investigations for water and sewer installations at Tuktoyaktuk and Fort Providence.

TESTING LABORATORIES

The past year has seen a marked increase in the scope and variety of work undertaken in the Department's Testing Laboratories. Quality control activities remained at high level, exceeding, in some respects, the volume of the preceeding year. Development work, however, showed a significant increase, both in the number and types of projects accomplished for this and other government agencies.

Of particular interest has been our contributions in two fields of immediate interest to the general public; namely improved lifejacket design and basic performance standards for automobile safety seat belts.

It is a matter of common knowledge that lifejackets marketed for use in small boats have, in many instances, proven somewhat less than effective. Our Testing Laboratories, at the request of the Department of Transport and the C.G.S.B., have contributed appreciably in the evaluation of new designs which, it is hoped, will lead to more satisfactory forms of this life saving equipment.

Automobile safety seat belts have been, and continue to be the subject of widespread interest both to safety associations and the public at large. Last year, Canadian standards were published for the first time, setting out minimum requirements to which belts must conform to gain approval. Increasingly, these will become part of provincial regulations regulating the installation of these injury and death reducing equipment in motor vehicles.

The Testing Laboratories have made major contributions in this field, particularly in the investigation and development of tests and apparatus for the determination of the behaviour of belts under loop load conditions. A form of body block, referred to as a frictionless roller block, designed by the staff, is now incorporated in the Canadian standard. Considerable work has also been done in the investigation of the effect of light in reducing the strength properties of the fabric webbings used in seat belts. The purpose here, of course, is to discover if sunlight adversely affects the belts to the ultimate detriment of the user.

Work on the projects mentioned above is still being actively pursued and, in the case of the latter, co-operation with United States authorities is now underway with the purpose of re-evaluation of the seat belt standard currently used in that country.

Perhaps of more limited interest but nevertheless still topical are the Laboratories contributions to the following projects during the past year: —

National Library — geological consulting services were provided to solve the complex problems posed by the peculiarities of the bedrock underlying the site.

Site for Proposed National Museum — historical overtones were evoked when it was discovered that a large part of the site consisted of a filled-in former turning basin of the Rideau Canal.

Jet Fuel Filters — a full scale testing assembly for assessing the effectiveness of full size jet fuel filters was designed, constructed and put into operation during the year.

Rubber Bridge Bearing Pads — increasing interest in the use of these pads lead to the need for the designing and the building of testing equipment to perform simulated loading tests under many temperature conditions. Data in connection with these activities was not previously available.

Survey of wharves — on the east coast, a survey has been made, for example, to ascertain the extent of corrosion of steel sheet pilings. Various systems of coatings have been applied on some pilings to determine their effectiveness in preventing corrosion.

Fluorescent Lighting Study — a long duration project to determine the economy of periodic wholesale change of fluorescent lighting tubes in Government buildings as against individual replacements on failure is under way.

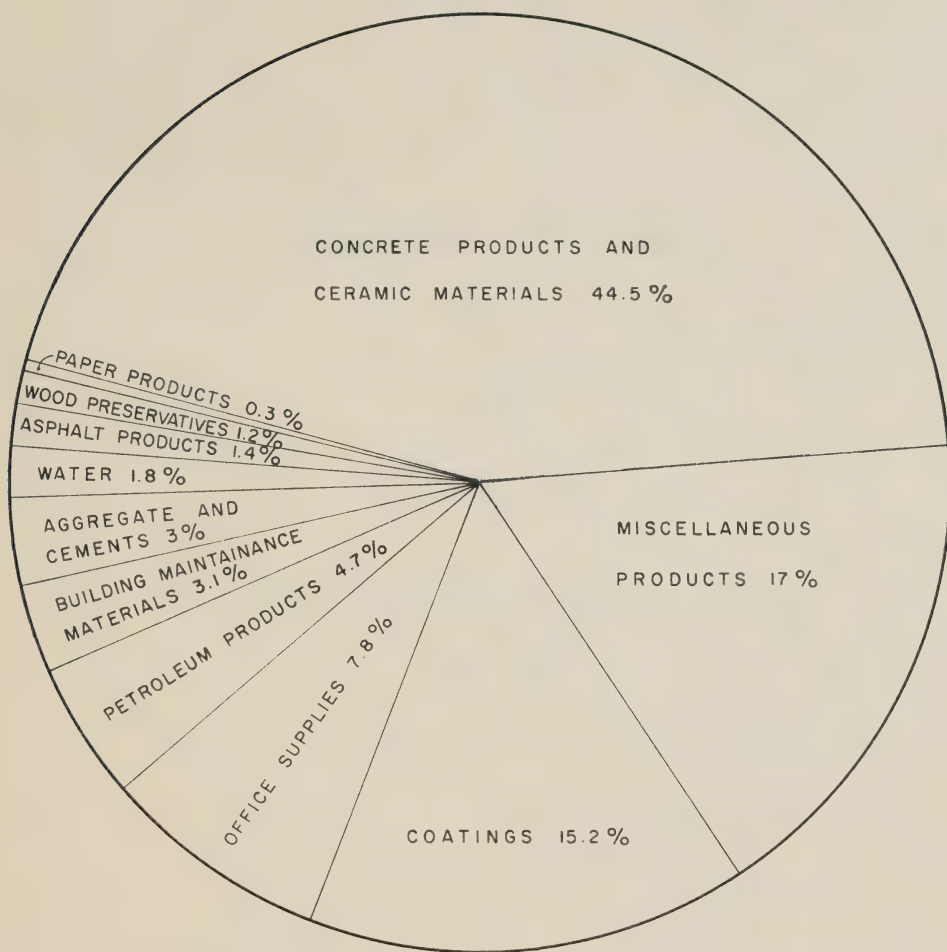
Freeze-Thaw Cycle Testing — a freeze-thaw test program was prepared and started on samples of a wide variety of construction materials to obtain data for the development of a C.G.S.B. specification for these products.

Co-Operative Cement Testing Programs — this program, under the jurisdiction of the Canadian Standards Association, has been active for some years and involves several cement testing laboratories across Canada. Similar cement samples are submitted to each laboratory twice a year for chemical and physical test purposes. The data obtained is used for statistical analysis to determine inter-laboratory coefficient variations.

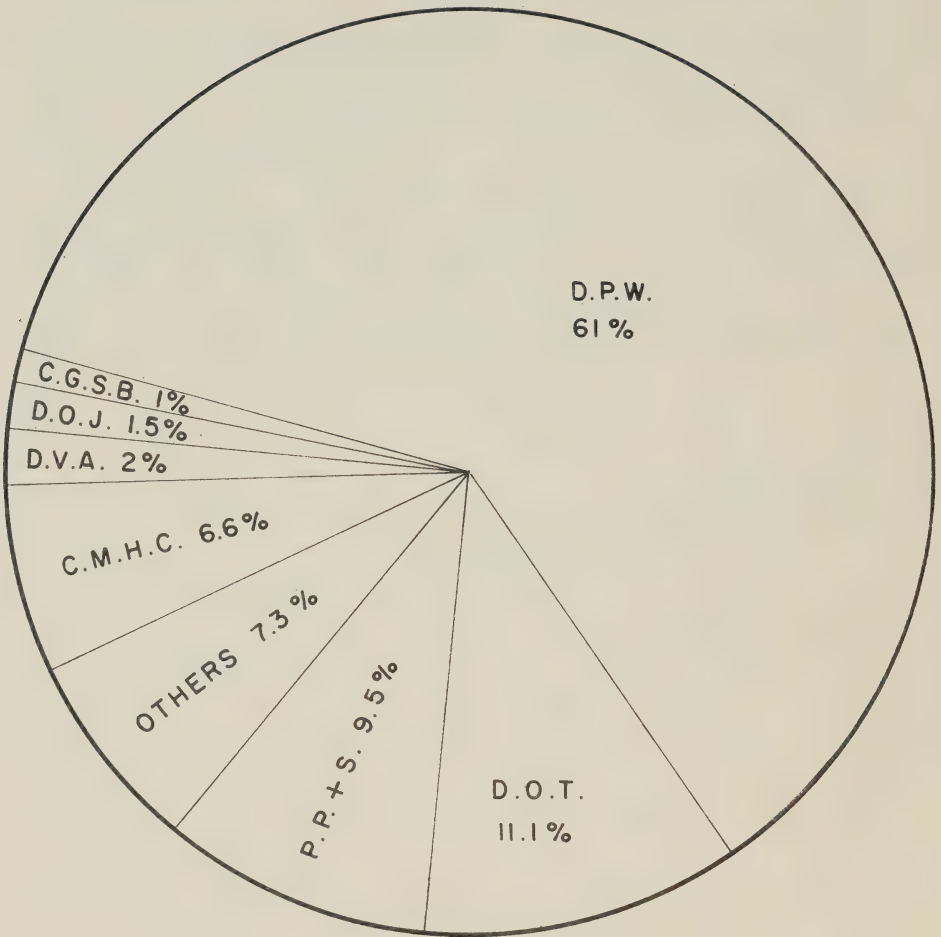
The Testing Laboratories endeavours in the field of quality control were maintained at a high level. Varieties of materials and products tested continued to increase; the consulting services of the Laboratories were in greater demand; and the contributions of time and staff to such outside bodies as the Canadian Standards Association and the C.G.S.B. were given in greater measure.

As a visual aid, the following illustrations show the major activities, source of work and time given to the major spheres of activities during the past year.

KINDS OF MATERIALS TESTED



DEPARTMENTS AND AGENCIES FOR WHOM WORK DONE



LEGEND

D. P. W.	Dept. Public Works
D. O. T.	Dept. Transport
D. V. A.	Dept. Vet. Affairs
D. O. J.	Dept. Justice
P. P. S.	Pub. Print. & Stationery
C. M. H. C.	Cent. Mortgage & Housing
C. G. S. B.	Cdn Government Spec. Board

OTHERS

Dept. Mines & Tech. Surveys
 Dept. Northern Affairs
 Dept. Agriculture
 Dept. National Defence
 Post Office Dept.
 Cdn Standards Association
 R. C. M. P.
 Atomic Energy
 Royal Cdn Mint
 Public Archives
 Ntl Harbours Board
 Ntl Capital Commission
 St. Lawrence Seaway

TYPE OF WORK



BUILDING CONSTRUCTION BRANCH

The Building Construction Branch is the principal Federal Government agency providing architectural and engineering services to all federal departments which require building construction, alterations, additions or demolitions. Practically all departments use this service, the main exceptions, at present, being the Departments of National Defence and Transport (Air Services).

During the year, a major reorganization of this Branch was effected in order to enable it to better carry out its aims, which is to provide the best designed buildings and associated services. The objective of the re-organization plan was to provide a centrally controlled, decentralized operation which would allow for the development of the best features of a headquarters expert design capability along with the obvious advantages of regionalized operations. It is anticipated that this form of organization will provide opportunity for professional career advancement with the development of personnel trained in practical field operations being provided with opportunities for specialization at senior levels in headquarters.

In assessing the steps necessary to produce the proper standard of centralized design capability, it was considered that the buildings produced by the Branch could logically be categorized in five general groupings — Office Buildings, Laboratories, Penitentiaries, Northern Construction Projects and Special Projects.

With this in mind, the basic units provided in the Building Construction Branch to perform its function are:

1. A central headquarters unit operating as the administrative control agency of the Branch and staffed by five teams of expert architects and engineers, specializing in these building types and supported by a technical and administrative element. This unit is responsible for operational research, programming construction projects, defining project requirements, and review of design criteria.
2. Ten district units administering the production of plans and specifications; supervising and maintaining progress schedules; and providing quality control of construction contracts in progress.

Private consulting architectural and engineering services are used extensively to carry out the district function and to provide the major extension of the district operations.

The basic organization of the Branch was organized into four working Divisions:

The Client Department Division — responsible for the liaison service to client departments, the co-ordinated production of project briefs and overall project programming.

The Consulting Services Division — responsible for providing the client department division and the district offices with specialized technical consultation, review and drafting services.

The Administrative Services Division — responsible for the provision of specialized contract estimating, claims, accounting and statistical services, as well as with Branch personnel and office services.

The District Offices Division — responsible for production of tendering and contract documents, the supervision of private consultants production services and construction contract administration.

Under this new organization, it was possible, for the first time, for the Building Construction Branch to embark on a practical program of applied research which had as its goal the creation of highly developed design skills in the five

basic building types. During the year, special emphasis was placed on the production of a Building Construction Branch Operations Manual. A major study was carried out to establish policy for air-conditioning in federal buildings. Another important task undertaken during the same period was the development of design standards for laboratory buildings. Ground rules were also established for intra-branch design competitions which are to be aimed, in particular, at improvement of standard design buildings. Two of these competitions were carried out successfully during the year, one of them — a new design for an 800' standard post office was completed and put into effect. The other will be implemented during 1964-65. The aim in all of these undertakings is quality improvement.

The charts show the number and value of projects carried out for other government departments, as well as for the Department of Public Works as provided by Departmental Estimates. They also provide a visual relationship between the value of the programs carried out for various client departments in relation to the Department of Public Works' projects, as well as indicating the relative breakdown of the overall program between the five main categories of buildings.

The following narrative descriptions describe the type of program or project undertaken in each of the five groupings under which the Branch now operates.

Office Buildings Group

The Winter Works Building Construction Program comes within the operations of this group. During the fiscal year, 144 contracts in this category were awarded, and represents almost twice the number awarded in any previous year since the Program was inaugurated. These ranged from smaller buildings valued at approximately \$9,000, to federal buildings such as at Inverness, N.S., costing approximately \$118,000.

This year the department introduced the new small "Revenue Post Office" which made possible a much wider distribution of construction. In selecting locations for these Post Offices, areas of high unemployment were given top priority consistent with the needs of the Post Office Department at each specific location. These small Revenue Post Office are standard buildings which vary slightly in size to suit the particular requirements at each location but each averages about 24' x 24' in dimensions. Normally of frame construction, they have all the amenities of the larger post offices, can be constructed quickly and are ideally suited to this type of program. The Winter Works Program included 91 of these buildings.






Laboratories Group

The Environmental Health Laboratory is currently being built to accommodate the research facilities of the Public Health Engineering and Occupational Health Division of the Department of National Health and Welfare.

The site for the building is at Tunney's Pasture, immediately east of the National Health and Welfare Headquarters Building. The Laboratory Building will be three stories in height, approximately 290 feet long and 54 feet wide. The three stories rest on a large basement 365 feet long and 98 feet wide, the roof of the basement forming a podium for the National Health and Welfare Headquarters building.

This building is the first of a group of laboratory office buildings adjacent to the 18 storey headquarters building. When these buildings are completed, they will form a complex of three-storey laboratory office buildings at the base of the headquarters tower.

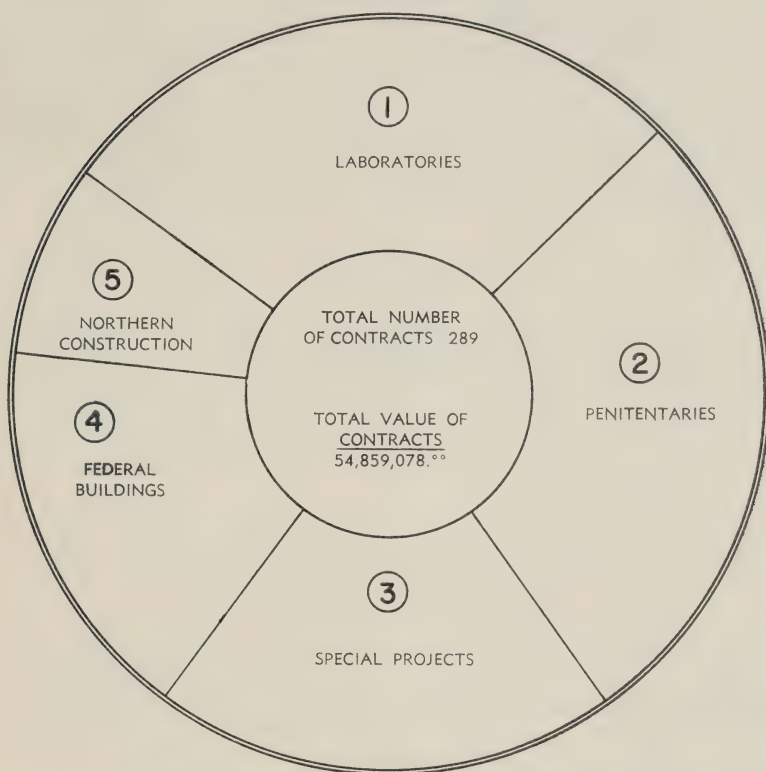
BUILDING CONSTRUCTION BRANCH

FIVE YEAR SUMMARY CHART																																	
FISCAL YEARS	MILLIONS OF DOLLARS																								NUMBER OF CONTRACTS			GROSS VALUE OF CONTRACTS					
	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	OF CONTRACTS												
																					D.P.W.	CLIENT DEPT.	TOTAL										
1959 - 60																									137	108	245	34,246,558.00					
1960 - 61																									187	83	270	31,440,435.00					
1961 - 62																									145	79	224	33,174,298.00					
1962 - 63																									135	51	186	33,363,195.00					
1963 - 64																									206	83	289	54,859,078.00					

LEGEND  INDICATES FUNDS SUPPLIED BY DEPARTMENT OF PUBLIC WORKS  INDICATES FUNDS SUPPLIED BY OTHER GOVERNMENT DEPARTMENTS

BUILDING CONSTRUCTION BRANCH

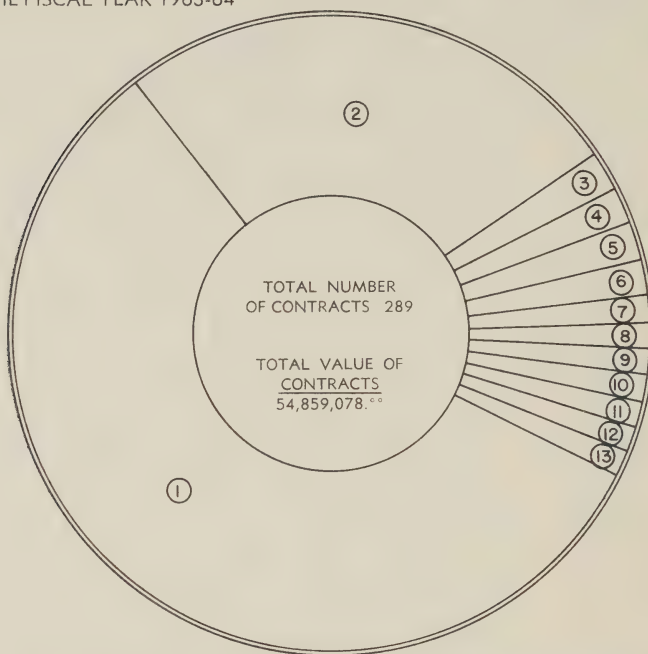
PROGRAMME FOR THE FISCAL YEAR 1963-64
CHART INDICATES NUMBER OF CONTRACTS AND GROSS VALUE OF
ALL CONTRACTS IN ACCORDANCE WITH THE FIVE MAIN TYPES OF
CONSTRUCTION



	TYPE OF CONTRACT	NUMBER OF CONTRACTS	PERCENTAGE OF TOTAL VALUE
①	LABORATORIES	19	27.98 %
②	PENITENTIARIES	11	26.92 %
③	SPECIAL PROJECTS	8	19.83 %
④	FEDERAL BUILDINGS	200	16.72 %
⑤	NORTHERN CONSTRUCTION	51	8.55 %
	TOTAL	289	100. %

BUILDING CONSTRUCTION BRANCH

CHART INDICATING THE NUMBER OF CONTRACTS FOR EACH DEPT. AND THE PERCENTAGE OF THE TOTAL GROSS VALUE OF \$54,859,078.⁰⁰ FOR ALL CONTRACTS IN THE PROGRAMME FOR THE FISCAL YEAR 1963-64



NO.	NAME OF DEPARTMENT	NUMBER OF CONTRACTS	PERCENTAGE OF GROSS VALUE
1	PUBLIC WORKS	206	58.12 %
2	JUSTICE	38	28.24 %
3	FORESTRY	2	4.47 %
4	CITIZENSHIP & IMMIGRATION	12	2.71 %
5	NORTHERN AFFAIRS & NAT. RES.	7	1.80 %
6	VETERANS AFFAIRS	2	1.52 %
7	TRANSPORT	2	1.28 %
8	AGRICULTURE	5	0.88 %
9	NATIONAL REVENUE	3	0.54 %
10	FISHERIES	6	0.18 %
11	NATIONAL HEALTH & WELFARE	2	0.11 %
12	MINES & TECHNICAL SURVEYS	2	0.10 %
13	INDUSTRY	2	0.05 %
	TOTAL	289 =	54,859,078. ⁰⁰

A contract was awarded to Perini Limited, general contractors, on October 2, 1963, for \$2,672,030.00 with a completion date of June, 1965.

Northern Construction Group

The settlement of Frobisher Bay in the south-eastern region of Baffin Island was the scene of a \$3,711,165. modern building program during 1963. The project centred around a new 28-bed hospital built for the Department of National Health and Welfare to meet the increasing demand for medical care among the Eskimos. To serve the hospital and possible future developments in the settlement, a 230,000 gallon per day water treatment plant, sewage disposal, warehousing, and roads, were built for the Department of Northern Affairs and National Resources, which will administer the project on completion of the construction in 1964.

All buildings in the new development will be heated from a central heating plant through a system of heated utilidors which have been built as part of this project. These utilidors are above-ground, insulated, metal-clad boxes that distribute high temperature hot water heating, domestic water supply, and power, and also contain the sewage lines.

Special Projects Group

One of the larger projects under consideration by this group during the year was the new National Museum in Ottawa. Planning was carried out on the basis that construction would start during 1964-65 on Phase I of the project.

The first stage of the new Museum complex will house the Human History Branch of the Museum, including the War Museum. Phase II which will follow when all of the site is available, will house the Natural History Branch of the Museum.

The estimated cost of Phase I approximates \$14,000,000 and for Phase II, about \$6,000,000. Future plans include the establishment of a Canadian Museum of Science and a Planetarium in the same general area.

The building for Phase I is the first step in the Parkin Plan for the development of the Confederation Square area. It will form the southern closure of the new Square and will be permanently sited on a podium raised some 20' above Laurier Avenue, thereby elevating the building to the level of the Mackenzie King Bridge. With the recent decision to locate the National Centre for the Performing Arts on the north side of this bridge, a tie-in with the Museum is assured.

Penitentiaries Group

In 1961, the Department of Justice requested the Department of Public Works to undertake a long range construction program of new penitentiaries amounting to over \$30,000,000. Over-crowding in existing penitentiaries had created an urgency for the construction of new institutions at the greatest possible speed.

To meet this urgent problem the Department of Public Works adopted two policies: (a) the development of standard plans for each type of institution, and (b) the use of a standardized method of construction using precast concrete structure and wall panels.

During the past year, standard plans for Medium Security Institutions were completed and construction of two of these was begun — one at Cowansville, Que., and one at Mastqui, B.C., each at a cost of about \$7,000,000. In addition, plans are now ready for construction to begin on two more Medium Security

Institutions, one at Warkworth, Ontario and one at Springhill, N.S. Standard plans for Maximum Security Institutions are almost complete and construction of the first of this type of institution will begin shortly in Quebec.

Plans for a Special Detention Unit at St. Vincent de Paul are nearing completion and construction is scheduled to begin shortly, to be followed by another one at Prince Albert, Sask., and a third at Millhaven, Ontario.

DEPARTMENT OF PUBLIC WORKS

Report of the Treasury Office

J. M. Wilkinson, Chief Treasury Officer

STATEMENT OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS
DURING THE FISCAL YEAR ENDING MARCH 31, 1964

PUBLIC BUILDINGS	Dredging	Construction and impro- vements	Repairs	Staff maintenance and sundries	Total
Outside of Canada		571,878	76,540	434,355	1,082,773
Newfoundland		186,565	216,625	585,806	988,996
Nova Scotia		487,894	139,822	1,280,301	1,908,017
Prince Edward Island		25,177	35,367	203,629	264,173
New Brunswick		466,219	127,208	909,438	1,502,845
Quebec		2,502,295	994,201	6,900,177	10,396,673
Ontario		17,987,164	3,172,052	24,361,009	45,520,225
Manitoba		135,073	199,820	1,497,421	1,832,314
Saskatchewan		503,695	187,291	1,268,920	1,959,906
Alberta		594,167	197,358	1,662,895	2,454,420
Yukon and Northwest Territories		871,767	634,501	474,641	1,980,909
British Columbia		1,321,560	380,959	2,710 050	4,412,569
TOTALS		25,653,454	6,361,744	42,288,642	74,303,840
HARBOURS AND RIVERS					
Newfoundland	531,156	4,030,792	579,181	270,660	5,411,789
Nova Scotia	440,450	1,564,427	423,074	429	2,428,380
Prince Edward Island	444,071	361,829	237,655	9,554	1,053,109
New Brunswick	1,151,948	1,024,046	236,708	8,874	2,421,576
Quebec	384,715	3,176,395	902,937	335,980	4,800,027
Ontario	485,342	2,520,184	432,330	49,371	3,487,227
Manitoba	250,712	747	64,316	50,670	366,445
Saskatchewan	—	66,494	5,285	—	71,779
Alberta	280,799	7,397	12,485	29,962	330,643
Yukon and Northwest Territories	—	48,889	50,189	—	99,078
British Columbia	1,309,261	1,307,109	390,343	227,038	3,233,751
TOTAL	5,278,454	14,108,309	3,334,503	982,538	23,703,804
DEVELOPMENT ENGINEERING					
Newfoundland		11,317,470	—	—	11,317,470
Nova Scotia		882,308	—	—	882,308
Prince Edward Island		1,003,942	—	—	1,003,942
New Brunswick		5,551,021	1,282	234	5,552,537
Quebec		8,912,311	101,935	2,099	9,016,346
Ontario		5,114,999	163,786	95,380	5,374,165
Manitoba		236,358	449	—	236,807
Saskatchewan		2,386	—	—	2,386
Alberta		388,893	—	—	388,893
Yukon and Northwest Territories		141,612	2,500	—	144,112
British Colombia		10,404,504	—	—	10,404,504
Testing Laboratories		—	—	995,894	995,894
TOTALS		43,955,804	269,953	1,093,607	45,319,364

PUBLIC BUILDINGS	Dredging	Construction and improvements	Repairs	Staff maintenance and sundries	Total
MISCELLANEOUS					
Minister's Salary and Motor Car Allowance	—	—	—	17,047	17,047
General Administration	—	—	—	11,210,612	11,210,612
Fire Prevention	—	—	—	221,296	221,296
TOTAL	—	—	—	11,448,955	11,448,955
GRAND TOTAL	5,278,454	83,717,567	9,966,200	55,813,742	154,775,963

* NOTE: Details of expenditures covering individual contracts may be found in the Public Accounts for 1963-64.

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1963-1964

Revenue received by the Department of Public Works during the
fiscal year ending March 31, 1964

PUBLIC BUILDINGS

ORDINARY

Rents from Public Buildings and related properties	\$ 1,848,544.10
Sales of old furniture, fittings and building material, etc.	77.08
Sales of real estate	292,712.00
Commissions from telephone booths in public buildings	23,744.11
Refunds of Previous Years' Expenditures	101,519.23
	<u>\$ 2,266,596.52</u>

ENGINEERING WORKS

Sales of real estate	\$ 38,223.77
Earnings of Dry Docks, etc.	
Champlain Dry Dock, Lauzon, Que.	258,955.50
Lorne Dry Dock, Lauzon, Que.	67,905.50
Selkirk, Man., Repair Slip	2,594.73
Esquimalt, B.C., New Dry Dock	134,359.93
	<u>\$ 502,039.43</u>

Revenue from leased works and plants —

Kingston, Ont., Dry Dock, Rental	\$ 12,100.00
Ferry privileges	476.00
Earnings of dredges and plants	33,767.68
	<u>\$ 46,343.68</u>

Rents from water lots, etc.	\$ 73,280.62
Refunds of Previous Years' Expenditures	215,209.59
Sundry receipts	4,167.10
	<u>\$ 841,040.42</u>

MISCELLANEOUS

Damages to government property	\$ 2,412.69
Sundry receipts	176,292.96
	<u>\$ 178,705.65</u>

GENERAL SUMMARY

Public Buildings	\$ 2,266,596.52
Engineering Works	841,040.42
Miscellaneous	178,705.65
	<u>\$ 3,286,342.59</u>

DEPARTMENT OF PUBLIC WORKS

REPORT OF THE CHIEF TREASURY OFFICER, 1963-64 — Concluded

1963-64 REVENUE

The revenue for the year amounted to \$3,286,342.59 and was made up as follows:

Graving Docks	\$ 463,815.66
Rents	1,967,692.40
Casual Revenue	854,358.53
Ferries	476.00
	<u>\$ 3,286,342.59</u>

A breakdown of the above revenue follows:

Graving Docks — Maintenance and Operation

Champlain Graving Dock	\$ 258,955.50
Lorne Graving Dock, Lauzon, Que.	67,905.50
Selkirk, Man. — Repair Ship	2,594.73
Esquimalt, B. C. —Graving Dock	134,359.93
	<u>\$ 463,815.66</u>

Rents

Public Buildings	\$ 1,848,544.10
Water lots	73,280.62
Kingston Dry Dock	12,100.00
Earnings of the Dredges	33,767.68
	<u>\$ 1,967,692.40</u>

Casual Revenue

Sales of old furniture, etc.	\$ 77.08
Sales of real estate — Buildings	292,712.00
Commission from telephones in Public Buildings	23,744.11
Refunds of previous years' expenditures —	
Public Buildings	101,519.23
Refunds of previous years' expenditures —	
Engineering	215,209.59
Sundry receipts — Engineering	4,167.10
Damages to Government property	2,412.69
Sundry receipts — Miscellaneous	176,292.96
Sales of real estate — Engineering	38,223.77
	<u>\$ 854,358.53</u>

Ferries

Licence fees	\$ 476.00
	<u>\$ 3,286,342.59</u>

DEPARTMENT OF PUBLIC WORKS

EXPENDITURES MADE UNDER ENCUMBRANCES FROM OTHER DEPARTMENTS,
BUT NOT REPORTED IN THE PUBLIC WORKS SECTION OF THE
PUBLIC ACCOUNTS:

Building Construction	\$17,617,196.45	
Property and Building Management	1,351,388.38	
Purchasing and Stores	176,620.36	
		\$19,145,205.19
Harbours and Rivers Engineering	\$ 4,627,303.30	
Development Engineering	6,174,089.48	
		\$10,801,392.78
Total		<u>\$29,946,597.97</u>

STATEMENT OF FERRY LICENCES IN FORCE DURING
THE FISCAL YEAR ENDING MARCH 31, 1964

Clarence, Ontario — Thurso, P.Q.	\$ 20.00
Corunna, Stag Island, Ontario — Marysville, Michigan	25.00
Courtright, Ontario — St. Clair, Michigan	25.00
Cumberland, Ontario — Masson, P.Q.	10.00
Fitzroy Harbour, Ontario — Quyon, P.Q.	125.00
Kingsville, Leamington, Pelee Island, Ontario — Sandusky, Ohio	25.00
Lefaiivre, Ontario — Notre Dame du Bon Secours, P.Q.	30.00
Montebello, Quebec — Alfred, Ontario	15.00
Niagara Falls, Ontario — Niagara Falls, New York	25.00
Niagara-on-the-Lake, Ontario — Youngstown, New York	25.00
Port Lambton, Ontario — Roberts Landing, Michigan	25.00
Rockcliffe, Ontario — Gatineau Point, P.Q.	25.00
Sombra, Ontario — Marine City, Michigan	1.00
Walpole Island, Ontario — Algonac, Michigan	25.00



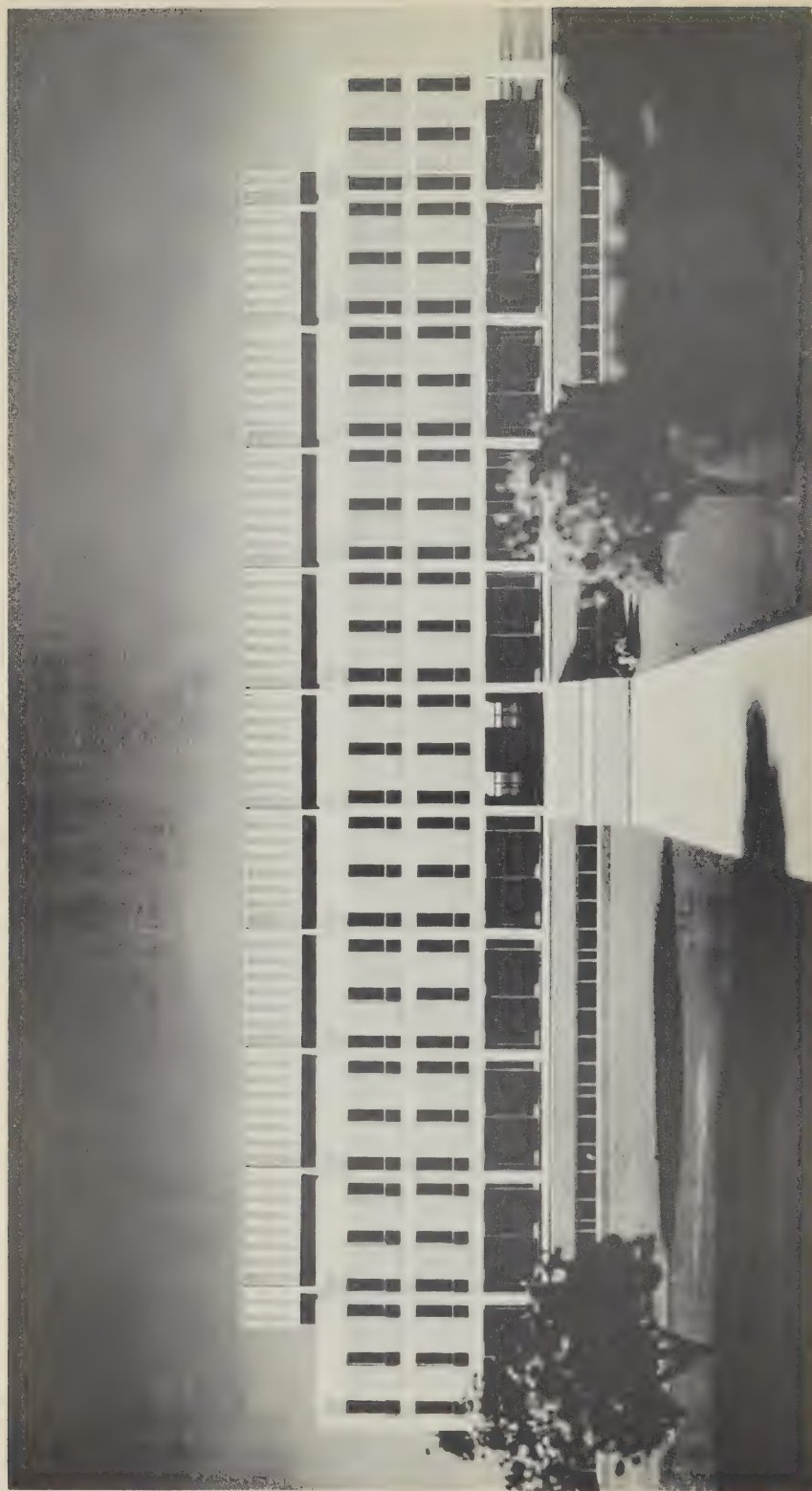
At a cost in excess of \$17 million, the redevelopment of the St. John's, Newfoundland, harbour is nearing completion. This modernization of one of the oldest harbours in North America will greatly increase the efficiency of port facilities at this location.

On achève de moderniser l'un des plus anciens ports de l'Amérique du Nord, celui de Saint-Jean (T.-N.). Cette entreprise, qui coûtera plus de 17 millions de dollars, revalorisera considérablement la capitale de la grande île au point de vue possibilités portuaires.

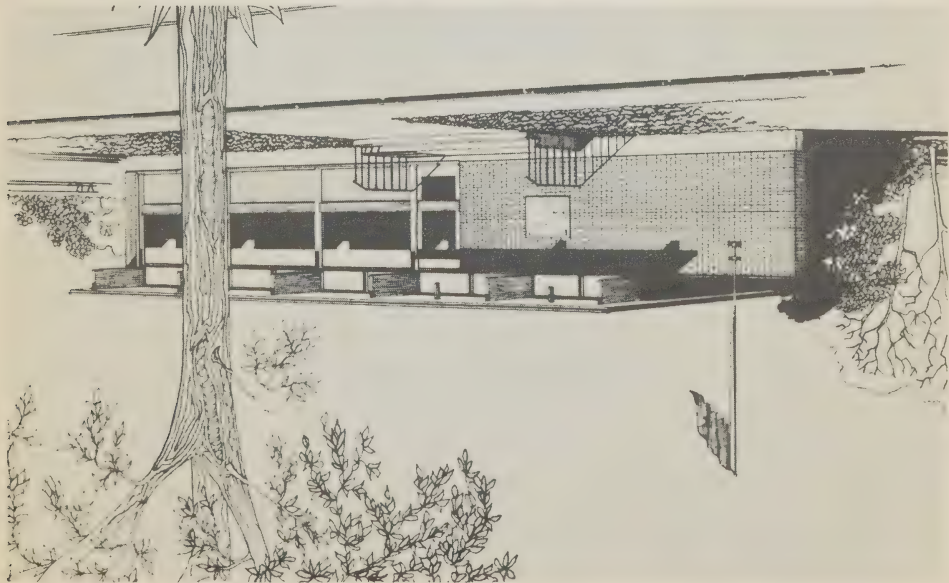


In safe, quiet waters the fishing fleet at Westview, B.C. makes use of the harbour constructed by the Department of Public Works.

Dans le port de Westview (C.-B.), construit par le ministère des Travaux publics, une flottille de pêche mouille en toute sécurité dans des eaux calmes.



This model shows how the new Environmental Health Centre for the Department of National Health and Welfare in Ottawa will look upon completion.
Cette maquette nous donne une idée de ce que sera l'immeuble qui abritera l'Unité d'évaluation du milieu, un secteur du ministère de la Santé nationale et du Bien-être social.



The Department of Public Works erects many post offices similar to this in the smaller centers across Canada. These have been designed to make extensive use of local materials and of a modular design, and are completely adaptable to meet local conditions.

Le ministère des Travaux publics est en train d'édifier dans nombre de petites localités des bureaux de poste semblables à celui que l'on voit sur cette photo. Les immeubles, de conception modulaire, ont été conçus de façon à être construits avec des matériaux locaux; très fonctionnels, ils pourront répondre adéquatement aux besoins de chaque petite ville.

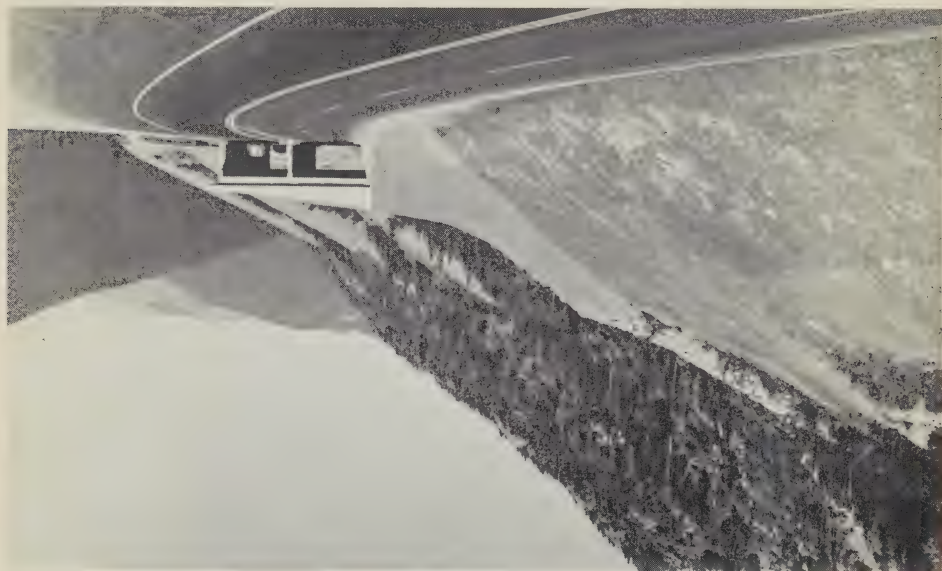


Work is underway here on the construction of a \$55,000 scale model of Northumberland Strait. It is being built to determine the effects of the proposed structure on ice movement, erosion, siltation, wave action and other factors.

On est en train de reconstituer à l'échelle, au prix de \$55,000, le détroit de Northumberland. Il s'agit d'étudier les effets d'une éventuelle structure sur le mouvement des glaces, l'érosion, l'ensablement, l'action des vagues et d'autres facteurs.

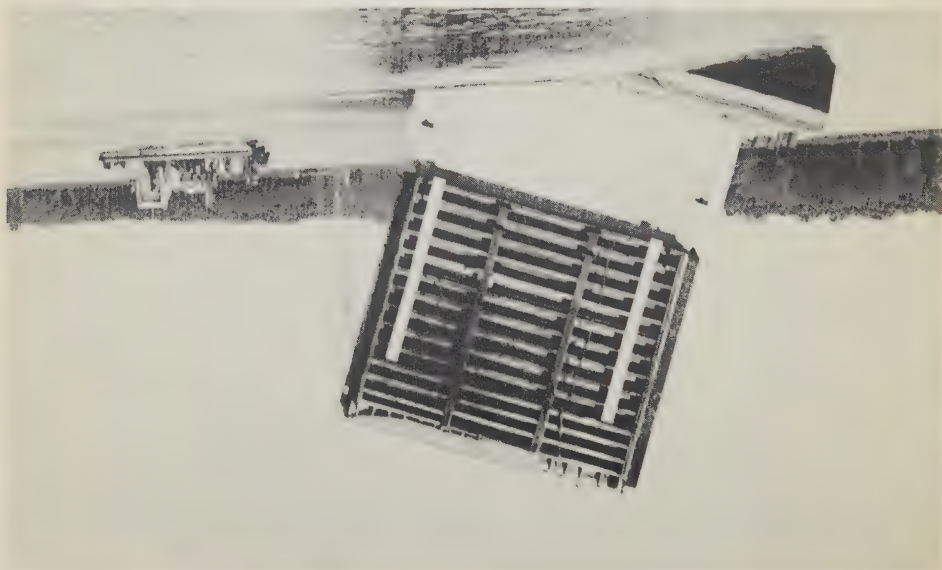
A typical snow shed along the Trans-Canada Highway in Glacier National Park. These sheds are erected in avalanche prone areas and guide any snow slides over the highway into the valley below.

Voici un paranéige typique le long de la route transcanadienne dans le parc national de Glacier. Ces dispositifs, érigés dans les régions où les avalanches sont fréquentes, guident les neiges par dessus la route et elles tombent dans la vallée.



The construction of the pier caissons of the Macdonald-Cartier Bridge between Hull and Ottawa was unusual. They were fabricated on a launching barge which was towed to mid-river and tipped by means of flooding internal compartments. Each caisson slid from the barge to a floating position and was then guided to its final location.

La fabrication de caissons pour le futur pont Macdonald-Cartier s'est effectuée dans un lieu inusité: à bord de barges capables, ensuite, de mettre elle-mêmes à l'eau leurs produits. Des barges, remorquées jusqu'au milieu de la rivière et inclinées par le noyage de soutes, les caissons furent glissés à l'eau, puis guidés à leurs emplacements définitifs.



<i>Loyers</i>	
Edifices publics	\$ 1,848,544.10
Lotissements	73,280.62
Bassin de radoub de Kingston	12,100.00
Recettes des dragues	33,767.68
	<hr/> \$ 1,967,692.40

<i>Recettes accidentelles</i>	
Ventes de vieux meubles, etc.	\$ 77.08
Commissions provenant de téléphones publics dans les	292,712.00
Edifices publics	23,744.11
Remboursement de dépenses des années précédentes —	101,519.23
Edifices publics	215,209.59
Recettes diverses — Génie	4,167.10
Domages aux immeubles gouvernementaux	2,412.69
Recettes diverses de services divers	176,292.96
Ventes d'immeubles — Génie	38,223.77
	<hr/> \$ 854,358.53

<i>Passages d'eau</i>	
Droits de permis	\$ 476.00
	<hr/> \$ 3,286,342.59

MINISTÈRE DES TRAVAUX PUBLICS

DÉBOURSÉS EFFECTUÉS EN VERTU DE CHARGES IMPUTÉES À D'AUTRES
MINISTÈRES, NON RAPPORTÉES AUX COMPTES DES TRAVAUX PUBLICS

DANS LES COMPTES PUBLICS

Construction des édifices	\$17,617,196.45
Gestion des immeubles	1,351,388.38
Achats et approvisionnements	176,620.36
	<hr/> \$19,145,205.19
Génie (ports et rivières)	\$ 4,627,303.30
Génie (aménagement)	6,174,089.48
	<hr/> \$10,801,392.78
Total	<hr/> \$29,946,597.97

LISTE DES PERMIS DE PASSAGE D'EAU EN VIGUEUR PENDANT L'EXERCICE TERMINÉ LE 31 MARS 1964

Clarence (Ont.) — Thurso (P.Q.)	\$ 20.00
Corunna, Ile Stags, — Marysville, (Mich.)	25.00
Courtight (Ont.) — St. Clair (Mich.)	25.00
Cumberland (Ont.) — Masson (P.Q.)	10.00
Fitzroy Harbour (Ont.) — Quyon (P.Q.)	125.00
Kingville, Leamington, Ile Pelée (Ont.) — Sandusky (Ohio)	25.00
Lefaire (Ont.) — Notre-Dame-du-Bon-Secours (P.Q.)	30.00
Montebello (P.Q.) — Alfred (Ont.)	15.00
Niagara Falls (Ont.) — Niagara Falls (N.Y.)	25.00
Niagara-on-the-Lake (Ont.) — Youngstown (N.Y.)	25.00
Port Lambton (Ont.) — Roberts Landing (Mich.)	25.00
Rockcliffe (Ont.) — Pointe-Gatineau (P.Q.)	25.00
Sombra (Ont.) — Marine City (Mich.)	1.00
Walpole, Ile (Ont.) — Algonac (Mich.)	25.00

MINISTÈRE DES TRAVAUX PUBLICS

Rapport de l'agent en chef du trésor, 1963-1964

Recettes du ministère des Travaux publics au cours de l'exercice
terminé le 31 mars 1964

RECETTES ORDINAIRES

EDIFICES PUBLICS

\$ 1,848,544.10	Loyers d'édifices publics et de propriétés attenantes
77.08	Ventes de vieux meubles, garnitures de construction, etc.
292,712.00	Ventes d'immeubles
101,519.23	Remboursement de dépenses des années précédentes
\$ 2,266,596.52	

TRAVAUX DE GÉNIE

\$ 38,223.77	Ventes d'immeubles
258,955.50	Recettes provenant des bassins de radoub, etc. —
67,905.50	Bassin de radoub Champlain, Lauzon (P.Q.)
2,594.73	Bassin de radoub Lorne, Lauzon (P.Q.)
134,359.93	Cale de radoub de Selkirk (Man.)
502,039.43	Nouveau bassin de radoub d'Esquimalt (C.-B.)
\$ 502,039.43	
\$ 12,100.00	Recettes provenant de location d'ouvrages et d'outillage —
476.00	Permis de passage d'eau
33,767.68	Location de dragues et d'outillage
\$ 46,343.68	Loyers de lots riverains, etc.
73,280.62	Remboursement de dépenses des années précédentes
215,209.59	Recettes diverses
\$ 841,040.42	

DIVERS

\$ 2,412.69	Domages causés à des propriétés de l'Etat
176,292.96	Recettes diverses
\$ 178,705.65	
\$ 2,266,596.52	Edifices publics
841,040.42	Travaux de génie
178,705.65	Divers
\$ 3,286,342.59	

RÉCAPITULATION

RECETTES DE 1963-1964
Les recettes de l'année s'élèvent à \$3,286,342.59 et se répartissent comme il suit:

\$ 463,815.66	Bassins de radoub
1,967,692.40	Loyers
854,358.53	Recettes accidentelles
476.00	Passages d'eau
\$ 3,286,342.59	

Suit la ventilation des recettes ci-dessus:

Bassins de radoub — *Entretien et exploitation*

\$ 258,955.50	Bassin de radoub Champlain
67,905.50	Bassin de radoub Lorne, Lauzon, (P.Q.)
2,594.73	Cale de radoub de Selkirk (Man.)
134,359.93	Bassin de radoub d'Esquimalt (C.-B.)
\$ 463,815.66	

Edifices Publics	Dragage	Construction et améliorations	Réparations	Personnel et divers	Total
DIVERS					
Traitement du minis-					
tre et allocation pour					
automobile					
Administration gène-					
rale					
Prévention des incen-					
dies					
Totaux	—	—	—	11,448,955	11,448,955
Totaux Globaux	5,278,454	83,717,567	9,966,200	55,813,742	154,775,963

REMARQUE: Un état des déboursés relatifs aux contrats particuliers est consigné dans les comptes publics de 1963-1964.

Rapport du bureau du trésor

L'ALLOCATION DES DEBOURSEES DU MINISTERE DES T

AU COURS DE L'EXERCICE TERMINE LE 31 MARS 1964

Edifices Publics	TOTAL	Edifices hors du Canada	TOTAL	PORTS ET RIVIERES	TOTAL	GENIE (AMENAGEMENT)	TOTAL
		Terre-Neuve	531,156	Terre-Neuve	440,450	Terre-Neuve	11,317,470
		Nouvelle-Ecosse	444,071	Nouvelle-Ecosse	1,151,948	Nouvelle-Ecosse	882,308
		Ile-du-Prince-Edouard	444,071	Ile-du-Prince-Edouard	1,564,427	Ile-du-Prince-Edouard	1,003,942
		Quebec	384,715	Quebec	3,176,395	Quebec	5,551,021
		Manitoba	485,342	Manitoba	2,520,184	Manitoba	5,114,999
		Saskatchewan	250,712	Saskatchewan	66,494	Saskatchewan	2,386
		Alberta	280,799	Alberta	7,397	Alberta	388,893
		Territoires du Yukon et du Nord-Ouest	1,309,261	Territoires du Yukon et du Nord-Ouest	48,889	Territoires du Yukon et du Nord-Ouest	141,612
		Colombie-Britannique	1,309,261	Colombie-Britannique	1,307,109	Colombie-Britannique	10,404,504
		TOTAL	5,278,454	TOTAL	14,108,309	TOTAL	43,955,804
Dragage	Construction et ameliorations	571,878	3,172,878	76,540	3,172,878	76,540	3,172,878
		186,565	139,822	216,625	139,822	216,625	139,822
		585,806	1,280,301	585,806	1,280,301	585,806	1,280,301
		988,996	1,908,017	988,996	1,908,017	988,996	1,908,017
		1,082,773	2,644,173	1,082,773	2,644,173	1,082,773	2,644,173
		1,502,865	6,909,438	1,502,865	6,909,438	1,502,865	6,909,438
		10,396,673	24,361,009	10,396,673	24,361,009	10,396,673	24,361,009
		45,520,225	1,497,421	45,520,225	1,497,421	45,520,225	1,497,421
		1,832,314	1,268,920	1,832,314	1,268,920	1,832,314	1,268,920
		1,959,906	1,662,895	1,959,906	1,662,895	1,959,906	1,662,895
		2,454,420	474,641	2,454,420	474,641	2,454,420	474,641
		1,980,909	2,710,050	1,980,909	2,710,050	1,980,909	2,710,050
		4,412,569	42,288,642	4,412,569	42,288,642	4,412,569	42,288,642
		74,303,840	6,361,744	74,303,840	6,361,744	74,303,840	6,361,744
		3,335,503	12,485	3,335,503	12,485	3,335,503	12,485
		50,189	64,316	50,189	64,316	50,189	64,316
		390,343	432,330	390,343	432,330	390,343	432,330
		227,038	902,937	227,038	902,937	227,038	902,937
		982,538	236,708	982,538	236,708	982,538	236,708
		270,660	8,874	270,660	8,874	270,660	8,874
		429	335,980	429	335,980	429	335,980
		5,411,789	2,421,576	5,411,789	2,421,576	5,411,789	2,421,576
		2,428,380	4,800,027	2,428,380	4,800,027	2,428,380	4,800,027
		1,053,109	3,487,227	1,053,109	3,487,227	1,053,109	3,487,227
		5,411,789	71,779	5,411,789	71,779	5,411,789	71,779
		330,643	366,435	330,643	366,435	330,643	366,435
		99,078	49,371	99,078	49,371	99,078	49,371
		3,233,751	3,487,227	3,233,751	3,487,227	3,233,751	3,487,227
		23,703,804	2,421,576	23,703,804	2,421,576	23,703,804	2,421,576
		45,319,364	1,980,909	45,319,364	1,980,909	45,319,364	1,980,909
		995,894	1,662,895	995,894	1,662,895	995,894	1,662,895
		10,404,504	2,454,420	10,404,504	2,454,420	10,404,504	2,454,420
		144,112	474,641	144,112	474,641	144,112	474,641
		1,441,112	1,980,909	1,441,112	1,980,909	1,441,112	1,980,909
		10,404,504	2,454,420	1			

national des arts au nord de ce pont consacre le rattachement de ce centre de culture au Musée lui-même.

Groupe des pénitenciers

En 1961, le ministère de la Justice demandait au ministère des Travaux publics de tracer un programme de travaux à longue portée pour la construction de nouveaux pénitenciers; ces nouvelles constructions entraîneraient des dépenses de plus de 30 millions de dollars. Les pénitenciers qui existaient étant trop encombrés, il fallait de toute urgence prévoir la construction de nouveaux immeubles. Face à cet urgent problème, le ministère des Travaux publics s'est fixé deux lignes de conduite: (a) la création de plans selon des normes établies pour chaque type d'institution, et (b) le recours à des méthodes de construction standardisées, faisant usage d'éléments pré-moulés tant pour les charpentes que pour les revêtements.

L'année dernière, des normes pour les plans des institutions à sécurité moyenne-ont été établies; la construction de deux de ces institutions a débuté, l'une à Cowansville (Québec) et l'autre à Matsqui (Colombie-Britannique); le coût s'élève à 7 millions de dollars environ dans les deux cas. En plus, on a terminé les plans prévoyant la construction de deux autres institutions à sécurité moyenne, l'une à Warkworth, en Ontario, et l'autre à Springhill, en Nouvelle-Ecosse. Les normes des plans destinées aux institutions à sécurité moyenne sont sur le point d'être adoptées, et la construction du premier immeuble conçu suivant ces normes débutera bientôt dans la province de Québec.

Les plans d'un bâtiment spécial de détention à Saint-Vincent-de-Paul sont presque prêts et la construction devrait commencer sous peu; des unités semblables seront construites à Prince Albert, en Saskatchewan et à Millhaven, en Ontario.

Le laboratoire de l'unité d'évaluation du milieu est actuellement en construction; on y logera les installations de recherche des services du génie sanitaire et de l'hygiène du travail du ministère de la Santé nationale et du Bien-être social. L'édifice sera situé à Tunney's Pasture, immédiatement à l'est de l'immeuble des services du ministère de la Santé nationale et du Bien-être social. Le laboratoire complètera trois étages et aura une superficie de 290 pi. de long sur 54 pi. de large environ. Les trois étages reposent sur un rez-de-chaussée de 365 pi. de long sur 98 pi. de large dont le toit supporte un podium pour l'immeuble du ministère de la Santé nationale et du Bien-être social. Cet immeuble est le premier d'un ensemble de bâtiments où logeront les bureaux voisins de l'édifice de 18 étages formeront un ensemble de bâtiments de la Santé nationale et du Bien-être social. Ces édifices formeront un ensemble de bâtiments de 3 étages logeant les bureaux des laboratoires, le tout situé au pied de l'édifice réservé à l'administration centrale. Un contrat, se montant à \$2,672,030, a été adjugé à la société Périni Limited, entrepreneurs généraux, le 2 octobre 1963, la fin des travaux devant intervenir en juin 1965.

Groupe de la construction dans la région du Nord

En 1963, le poste de Frobishier Bay, situé au sud-est de l'île de Bafilein, a vu l'exécution d'un programme de construction d'immeubles modernes d'une valeur de \$3,711,165. Le travail le plus important portait sur la construction d'un hôpital de 28 lits pour le compte du ministère de la Santé nationale et du Bien-être social, afin de satisfaire aux exigences plus grandes des Esquimaux dans le domaine des soins médicaux. Pour desservir l'hôpital et les autres installations à venir de la région, on a construit une usine de traitement des eaux d'une puissance de 230,000 gallons d'eau par jour, un système d'écoulement des eaux d'égout, des entrepôts et des routes, le tout pour le compte du ministère du Nord canadien et des Ressources nationales à qui incombera en 1964 la direction de ces entreprises une fois les travaux terminés.

Tous les immeubles seront chauffés grâce à une installation centrale comprenant des utilidors chauffés qui ont été prévus aux plans. Ces utilidors sont des coffres, au niveau du sol, pourvus d'une matière isolante et d'un revêtement extérieur en métal. Ils alimentent un système de chauffage à eau très chaude, assurent l'approvisionnement en eau potable, fournissent l'énergie électrique et on y trouve également les tuyaux d'égout.

Groupe des projets spéciaux

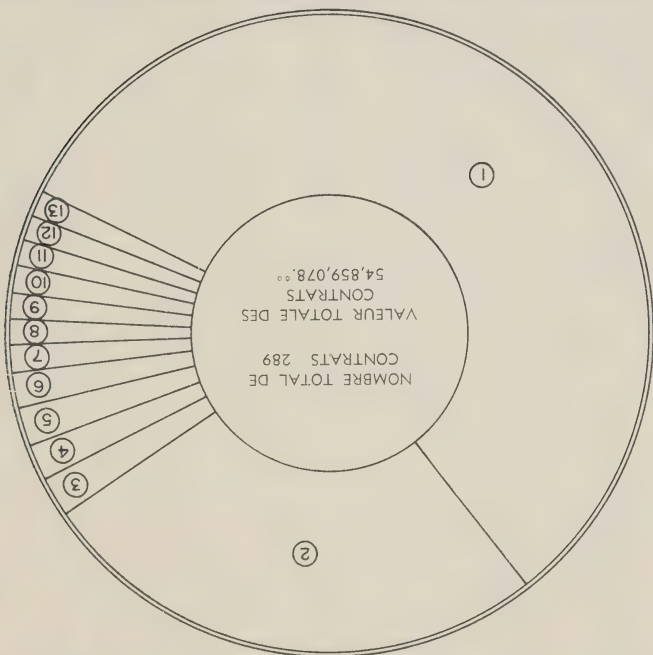
Un des travaux les plus importants étudiés dans cette catégorie a porté sur la construction du nouveau Musée national à Ottawa. Les programmes ont été élaborés en partant de l'hypothèse que la construction débuterait au cours de l'année 1964-1965, du moins en ce qui concerne la première phase du programme.

Il s'agit d'un complexe, et la première phase de la construction portera sur un immeuble qui abritera la partie du musée consacrée à l'Histoire de l'homme, y compris le musée de la Guerre. Les travaux de la seconde phase, qui commenceront dès que tout le terrain nécessaire sera disponible, porteront sur la construction de l'immeuble du musée de l'Histoire naturelle.

Les estimations pour la première phase s'élèvent à environ 14 millions de dollars, et à environ 6 millions de dollars pour la seconde phase. On se propose de construire dans les environs un musée canadien de la Science et un planétarium. La construction prévue pour la première phase constitue le premier pas vers l'exécution du plan Parkin d'aménagement de la place de la Confédération. Cet édifice formera l'angle de la nouvelle place, et occupera de façon permanente un podium situé à 20 pi. au-dessus de l'avenue Laurier, élevant ainsi l'immeuble au niveau du pont Mackenzie King. La décision récente de construire le Centre

DIRECTION DE LA CONSTRUCTION DES ÉDIFICES

GRAPHIQUE INDICANT LE NOMBRE DE CONTRATS ADJUGÉS POUR CES CONTRATS REPRÉSENTENT PAR RAPPORT À LA SOMME DE \$54,859,078.00 MONTANT DE LA VALEUR TOTALE BRUTE DES CONTRATS AU TITRE DU PROGRAMME DE L'EXERCICE 1963-1964



NO.	MINISTÈRE	NOMBRE DE CONTRATS	POURCENTAGE DE VALEUR TOTALE
1	TRAVAUX PUBLICS	206	58.12 %
2	JUSTICE	38	28.24 %
3	FORÊTS	2	4.47 %
4	CITOYENNETÉ ET IMMIGRATION	12	2.71 %
5	NORD ET RESSOURCES NATIONALES	7	1.80 %
6	AFFAIRES DES ANCIENS COMBATTANTS	2	1.52 %
7	TRANSPORTS	2	1.28 %
8	AGRICULTURE	5	0.88 %
9	REVENU NATIONAL	3	0.54 %
10	PÊCHERIES	6	0.18 %
11	SANTÉ NATIONALE ET BIEN-ÊTRE SOCIAL	2	0.11 %
12	MINES ET RELEVÉS TECHNIQUES	2	0.10 %
13	INDUSTRIE	2	0.05 %
TOTAL		289 =	54,859,078.00







DIRECTION DE LA CONSTRUCTION DES ÉDIFICES

PROGRAMME POUR L'EXERCICE 1963-64
GRAPHIQUE INDICANT LE NOMBRE ET LA VALEUR TOTALE DES
CONTRATS ADJUGÉS DANS LE CADRE DES CINQ CATÉGORIES TYPES
DE CONSTRUCTION



1	LABORATOIRES	19	27.98 %
2	PÉNITENCIERS	11	26.92 %
3	PROJETS SPÉCIAUX	8	19.83 %
4	ÉDIFICES FÉDÉRAUX	200	16.72 %
5	CONSTRUCTIONS DANS LES RÉGIONS DU NORD	51	8.55 %
	TOTAL	289	100. %
	CATÉGORIES DE CONTRATS	NOMBRE DE CONTRATS	POURCENTAGE DE LA VALEUR TOTALE

DIRECTION DE LA CONSTRUCTION DES ÉDIFICES
RÉCAPITULATION

PÉRIODE DE CINQ ANS																					
EXERCICES	MILLIONS DE DOLLARS																		NOMBRE DE CONTRATS		VALEUR BRUTE DES CONTRATS
	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	
1959 - 60																			M.T.P.	MIN. CLIENTS	TOTAL
1960 - 61																			137	108	245
1961 - 62																			187	83	270
1962 - 63																			145	79	224
1963 - 64																			135	51	186
																			206	83	289

LEGENDE

 CORRESPOND AUX SOMMES VERSÉES PAR LE MINISTÈRE DES TRAVAUX PUBLICS

 CORRESPOND AUX SOMMES VERSÉES PAR LES AUTRES MINISTÈRES DU GOUVERNEMENT

La Division des bureaux régionaux — chargée de la préparation des demandes de soumission et des documents nécessaires aux contrats, de la surveillance des services privés d'experts-consultants en matière de production et du contrôle des contrats de construction.

Grâce à cette réorganisation, la Direction de la construction des édifices a pu, pour la première fois, mettre en œuvre un programme pratique dans le domaine de la recherche appliquée, programme dont le but était de s'assimiler des connaissances techniques de premier ordre pour l'exécution des cinq catégories de construction qui ont été adoptées. Pendant toute l'année, les efforts de la Direction ont porté en grande partie sur la préparation d'un manuel d'exploitation de la Direction de la construction des édifices. Une étude très importante a été consacrée à l'élaboration d'une ligne de conduite à l'égard de la climatization des édifices fédéraux. Un autre travail important entrepris à la même époque a porté sur l'élaboration de normes à l'égard des édifices destinés à loger des laboratoires. On a également prévu des règlements de base pour des concours de personnel; ces concours ont pour but, en particulier, d'apporter des améliorations aux plans-types d'édifices. Deux de ces concours ont été tenus au cours de l'année et l'un d'eux, portant sur le choix d'un nouveau plan-type de bureau de poste d'une superficie de 800 pi. a donné d'heureux résultats. Le projet a déjà reçu son application. Quant au second, il verra sa réalisation en 1964-1965.

Le graphique ci-contre indique le nombre et la valeur des travaux exécutés pour le compte d'autres ministères gouvernementaux, aussi bien que pour celui du ministère des Travaux publics, dans le cadre du budget de ce Ministère. Les appendices « B » et « B1 » permettent d'établir la relation entre le montant des travaux effectués pour le compte des divers ministères-clients et celui des projets exécutés par le ministère des Travaux publics pour son propre compte. Ces appendices donnent aussi le détail du programme d'ensemble pour chacune des cinq catégories principales d'édifices.

Les descriptions qui suivent font connaître les caractéristiques des programmes ou des travaux entrepris dans le cadre de chacune des cinq catégories où s'exerce l'activité de la Direction.

Immeubles à bureaux

Le programme de travaux de constructions d'hiver se range dans cette catégorie. L'année financière a vu 144 contrats adjugés dans le cadre de cette catégorie, ce qui représente près du double du nombre des contrats accordés au cours de l'importe quelle année depuis l'établissement du programme. La valeur des contrats allait depuis \$9,000 pour des immeubles peu importants, jusqu'à environ \$118,000 pour l'édifice construit à Inverness, en Nouvelle-Ecosse.

Cette année, le Ministère a mis en œuvre le nouveau plan de construction de petits bureaux de poste à commission, permettant ainsi d'augmenter de façon intéressante le nombre des travaux. Le choix de l'emplacement de ces bureaux de poste a été arrêté par priorité en fonction des conditions de chômage existant dans certaines régions, compte tenu des besoins du ministère des Postes dans chacune de ces localités en particulier. Ces petits bureaux de poste « à commission » sont des immeubles-types, dont la dimension peut varier selon les besoins particuliers de chaque localité, mais dont la moyenne s'établit à 24' x 24'. Ce sont en général des constructions en bois, dotées de tous les avantages des bureaux plus importants; de construction facile, ils conviennent admirablement à ce genre de programme. Quatre-vingt-onze de ces immeubles ont été construits dans le cadre du programme des travaux d'hiver.

DIRECTION DE LA CONSTRUCTION DES ÉDIFICES

La Direction de la construction des édifices est le principal organisme du gouvernement fédéral chargé d'assurer des services d'architecte et des services techniques à l'endroit de tous les ministères fédéraux, en particulier pour la construction d'immeubles, les transformations, rajouts ou démolitions. Presque tous les ministères ont recours à ces services sauf, pour l'instant, les ministères de la Défense nationale et des Transports (services aériens).

On a effectué une réorganisation importante de cette Direction au cours de l'année afin de lui permettre de mieux s'acquitter de sa mission qui est de construire les édifices les mieux conçus et d'assurer des services connexes. Ce projet de réorganisation visait à mettre sur pied une exploitation à direction centrale, dont les différentes opérations seraient décentralisées; ceci présente d'une part les avantages certains d'une administration centrale plus apte à assurer un service centralisé d'experts en préparation de plans et, d'autre part, ceux non moins évidents d'opérations ayant une portée régionale. On attend de ce mode d'organisation qu'il fournisse des possibilités d'avancement dans la carrière professionnelle à un personnel dont la formation se fera sur place, au cours d'opérations auxquelles il participera; ce personnel pourra ainsi profiter des moyens qui lui seront offerts de se spécialiser et d'atteindre les échelons supérieurs de l'administration centrale. L'étude des moyens propres à assurer l'adoption de normes à l'égard de la centralisation des services d'experts en préparation de plans a permis de constater que les édifices construits par la Direction pouvaient logiquement être classés dans les cinq grandes catégories qui suivent: édifices fédéraux, laboratoires, pénitenciers, constructions dans les territoires du Nord et projets spéciaux.

Les principales sections ci-après ont été créées afin de permettre à la Direction de la construction des édifices de s'acquitter de ses tâches:

1. Une administration centrale depuis laquelle s'exerce le contrôle administratif de la Direction; un personnel composé de cinq équipes d'architectes et d'ingénieurs experts y est affecté; ces experts sont des spécialistes dans les domaines de constructions mentionnées ci-dessus; ils sont assistés d'un service technique et administratif. Cette section est responsable de l'exécution des travaux de recherche, de l'élaboration des projets de construction, de la détermination des besoins résultant de ces projets et de l'étude des principes régissant le choix des plans.
2. Dix sections régionales chargées de la préparation des plans et devis, de la surveillance et de la préparation des rapports sur la marche des travaux, du contrôle de la qualité à l'égard des matériaux employés dans l'exécution des contrats en cours.

On fait appel très souvent à des services d'architectes et d'ingénieurs-conseils du domaine privé afin de compléter les travaux effectués dans le cadre des opérations régionales.

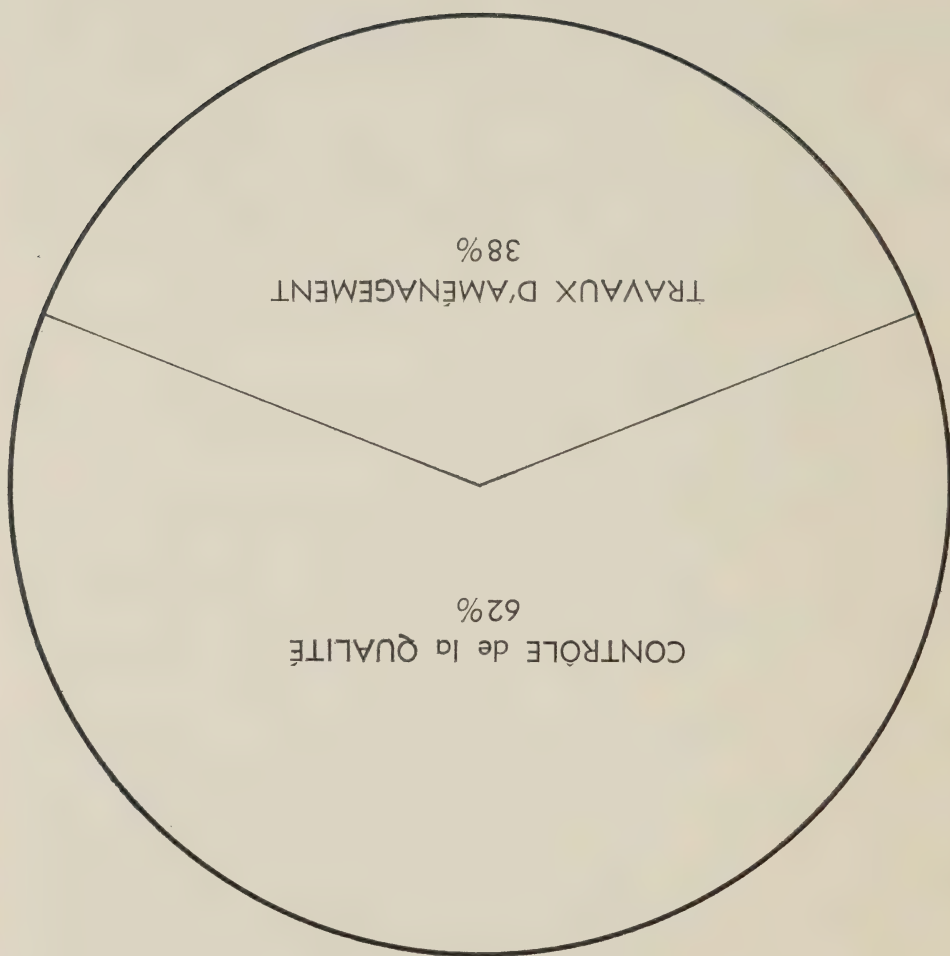
La Direction a été organisée selon quatre divisions de travail:

La Division des ministères-clients — chargée d'assurer la liaison entre les ministères qui font appel au service, de coordonner la préparation des projets, et d'arrêter les programmes d'ensemble.

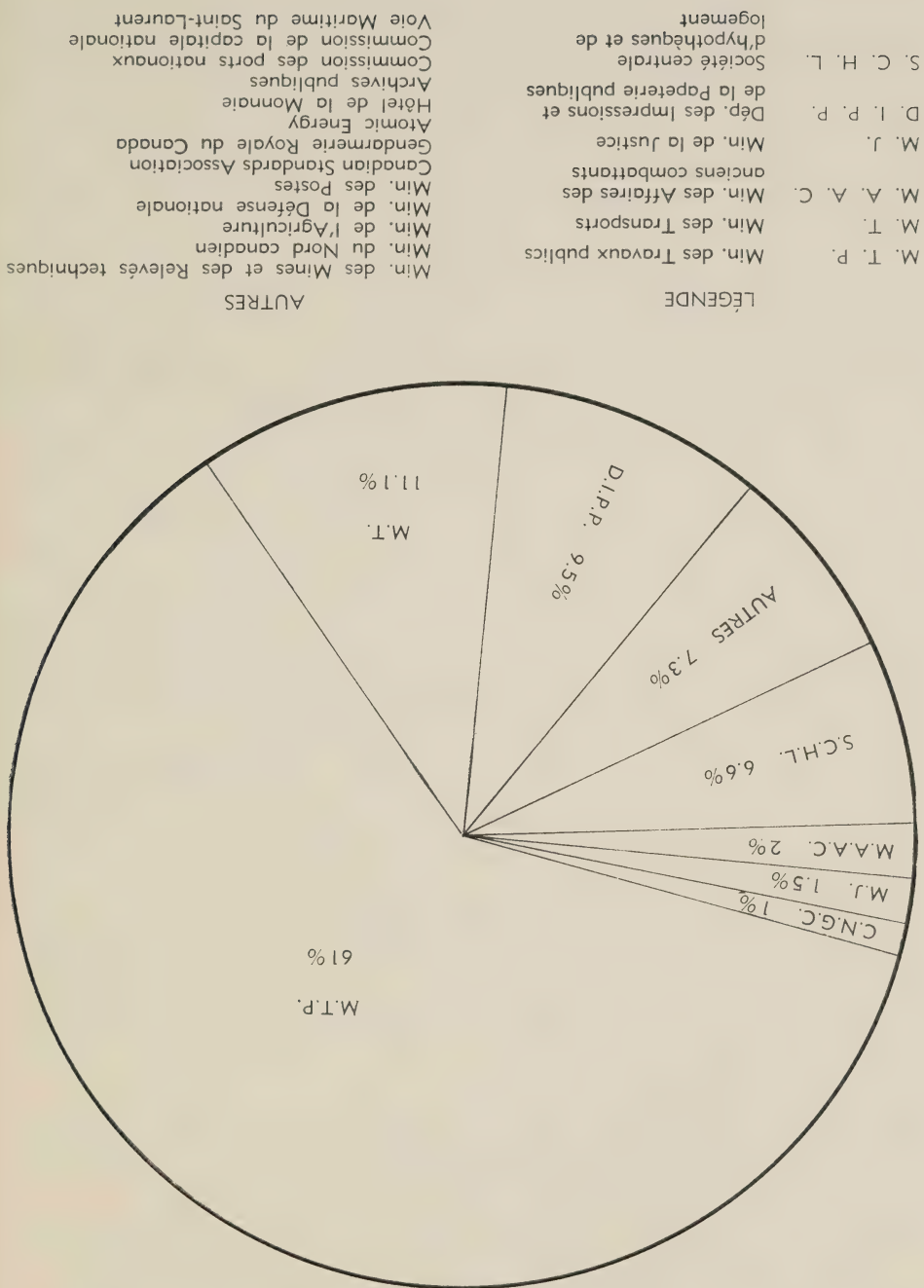
La Division des services d'experts-conseils — chargée d'assurer à la division des ministères-clients et aux bureaux régionaux des services d'experts-conseils en matière technique, des services d'études et des services de dessinateurs.

La Division des services administratifs — chargée d'évaluer les contrats de caractère spécial et les réclamations, d'assurer les services de comptabilité et de la statistique, du personnel et de l'administration.

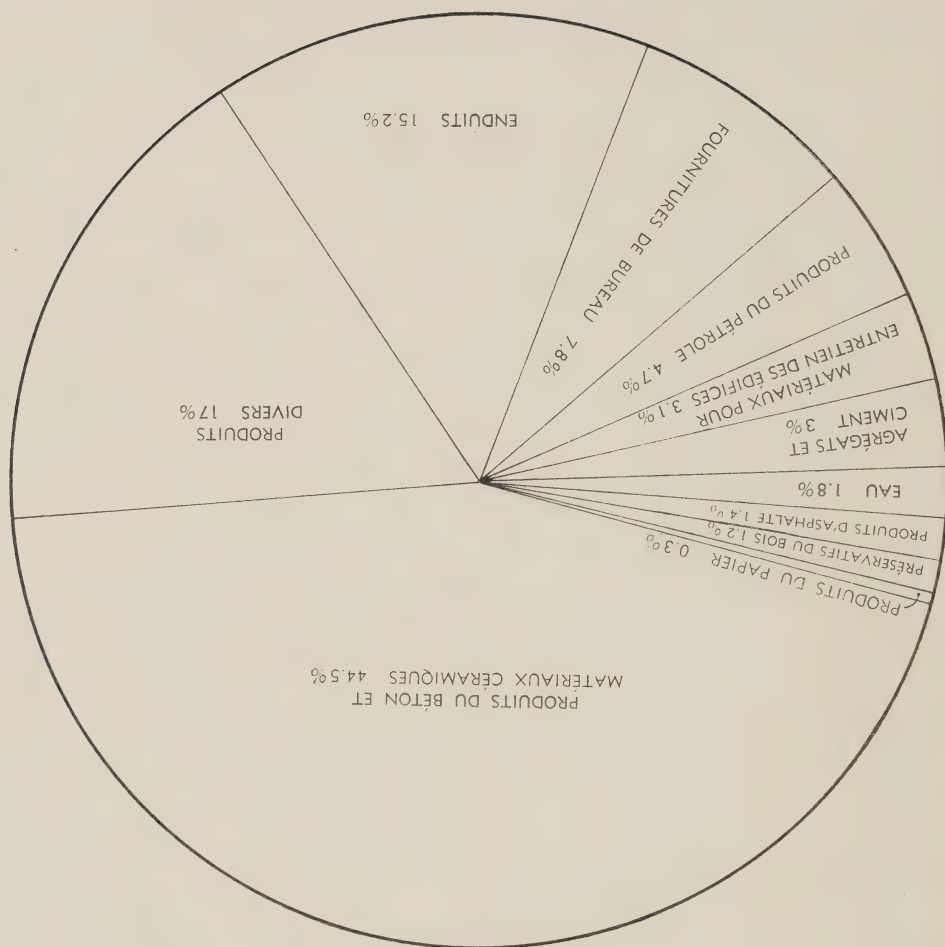
GENRE DE TRAVAIL



MINISTÈRES ET ORGANISMES POUR LESQUELS LE TRAVAIL EST EXÉCUTÉ



GENRES DE MATÉRIAUX ÉPROUVÉS



conditions de température variables. On ne possédait jusqu'à maintenant aucune documentation à ce sujet.

Études sur l'état des quais — On a effectué des études sur la côte Est du

Canada, afin d'établir le degré de corrosion des pilots en tôle d'acier. On a employé des revêtements divers sur ces pilots afin de découvrir lesquels assuraient le maximum de protection contre la corrosion.

Étude sur l'éclairage fluorescent — On poursuit un travail à long terme qui doit établir s'il ne serait pas économique de changer périodiquement tous les tubes d'éclairage fluorescents dans les édifices du gouvernement, plutôt que de les remplacer individuellement, lorsque l'un d'entre eux vient à griller.

Essais sur le cycle gel-dégel — On a préparé et démarré un plan d'épreuve des matériaux de construction au gel et au dégel, grâce à un vaste échantillon-nage qui permettra à l'Office des normes du gouvernement canadien de les inclure dans ses listes de spécifications.

Programmes coopératifs d'essai des ciments — Ce programme, dont l'exécution relève de la *Canadian Standards Association*, existe déjà depuis plusieurs années; plusieurs laboratoires d'essais de ciments, situés au Canada y participent activement. Des échantillons des mêmes ciments sont soumis à chaque laboratoire deux fois l'an à des fins d'analyse chimique et physique. Les résultats de ces études servent à des analyses de caractères statistiques portant sur les variations de coefficient obtenues par ces divers laboratoires.

Les initiatives des laboratoires d'essais dans le domaine du contrôle de la qualité ont continué. La variété des matériaux et produits soumis à des essais a sans cesse augmenté; on a fait appel de plus en plus aux services d'experts conseils des laboratoires qui, plus que par les années passées, ont consacré de longues heures et affecté leur personnel à des organismes extérieurs tels la *Canadian Standards Association* et l'Office des normes du gouvernement canadien. Les illustrations suivantes serviront à mieux comprendre le travail des laboratoires en indiquant les principales activités de ces derniers, l'origine du travail et le temps consacré, au cours de l'année dernière, à chacun des domaines de ces activités en particulier.

LABORATOIRES D'ESSAIS

Au cours de l'année, les laboratoires d'essais du ministère ont étendu de façon sensible leur champ d'action et fait porter leurs efforts sur des travaux de caractère plus varié. La recherche dans le domaine du contrôle de la qualité s'est maintenue au même niveau, et dans certains cas, a été plus poussée qu'au cours de l'année précédente. Les travaux de mise au point ont été marqués d'une grande activité, tant du point de vue de la quantité que de celui de la variété des tâches entreprises par le Ministère pour son compte, ou au nom des autres organismes du gouvernement.

Nous soulignons tout spécialement nos travaux dans deux domaines d'intérêt public: l'amélioration du modèle des ceintures de sauvetage, et l'établissement de normes de rendement à l'égard des ceintures de sécurité pour automobiles. Il est reconnu que les ceintures de sauvetage utilisées jusqu'à maintenant dans les embarcations légères étaient loin de répondre aux besoins. Or nos laboratoires d'essais, à la demande du ministère des Transports et de l'Office des normes du gouvernement canadien, ont contribué fort utilement à l'étude de nouveaux modèles qui, nous le souhaitons, apporteront plus de satisfaction.

La question des ceintures de sécurité pour automobiles préoccupe au plus haut point, aujourd'hui comme hier, les associations de sécurité et le public en général. L'an dernier, on a fait connaître pour la première fois les normes minimum auxquelles elles doivent répondre. On s'attend à ce que ces normes soient intégrées plus généralement aux règlements provinciaux sur la sécurité routière, qui prévoient l'installation d'appareils destinés à diminuer le nombre des accidents graves ou mortels. Les laboratoires d'essais ont joué là un rôle important, tout spécialement par la recherche et l'établissement d'épreuves et d'appareils mesurant le comportement des ceintures lorsque les boucles sont soumises à un gros effort. Un modèle de ceinture de sécurité a été mis au point par le personnel de nos laboratoires: elle est escamotable grâce à un dispositif à rouleaux sans frottement. Cette amélioration figure maintenant parmi les normes canadiennes. On a également effectué des recherches approfondies sur l'effet de la lumière sur la résistance des sangles employées dans la fabrication des ceintures de sécurité. On a cherché, dans ce cas, à savoir si la lumière peut diminuer la qualité des ceintures au point de les rendre inutilisables.

Les travaux mentionnés ci-dessus sont toujours en cours; dans le cas des ceintures de sécurité par exemple, des travaux sont exécutés en collaboration avec les représentants du gouvernement des Etats-Unis, afin d'étudier à nouveau les normes établies dans ce pays.

Les programmes suivants ne suscitent peut-être pas un intérêt aussi général, mais méritent quand même d'être mentionnés parce qu'ils donnent une idée des activités des laboratoires, au cours de l'année dernière.

Bibliothèque nationale — On s'est assuré des services d'experts-conseils afin de trouver une solution au problème compliqué que représente le lit de roche d'une nature très spéciale qui se trouve sous le lieu projeté de cet édifice.

Emplacement du futur Musée national — Des souvenirs historiques ont été évoqués à la suite de la découverte que l'emplacement choisi pour ce musée était en grande partie situé là où se trouvait autrefois un bassin de manœuvre du canal Rideau, aujourd'hui comble.

Filtres pour le combustible des avions à réaction — Un montage d'essai complet, destiné à étudier l'efficacité des filtres pour le combustible des réacteurs, a été conçu, puis exécuté en grandeur naturelle et finalement employé dans les essais, au cours de l'année.

Amortisseurs en caoutchouc pour les ponts — L'intérêt croissant manifesté à l'endroit de ces amortisseurs exige que soit conçu et monté un équipement pour servir à des épreuves par imitation des charges réelles supportées et dans des

Territoires du Nord-Ouest et du Yukon

On a continué les travaux d'arpentage pour une route conduisant de Fort Providence à Fort Simpson sur le fleuve Mackenzie, puis de Fort Nelson sur la rivière Lard. On a achevé la reconstruction de la grande route Mackenzie. D'autre part, on a adjugé deux contrats pour le déblaiement et d'autres contrats pour la construction de quatre ponts pour la route entre Hay River et Pine Point.

Les Chemins de fer nationaux du Canada, selon les termes d'un accord avec le ministère des Affaires du Nord et des Ressources nationales, ont bâti l'infrastructure d'un pont combiné rail-route au commencement de la route de Hay River-Pine Point. Le Ministère doit s'attaquer à la superstructure l'an prochain. Au début de 1964, le Ministère a adjugé un contrat pour le déboisement et l'emprise entre Pine Point et Fort Smith d'une grande route servant aussi de passage à une ligne électrique de haute tension.

Dans le territoire du Yukon, les travaux de construction se sont poursuivis sur la route reliant le lac Watson à la rivière Ross (un contrat de deux ans a été adjugé pour la construction d'un autre 77 milles). En vue de la prolongation de la route entre Flat Creek et le lac Chapman, qui s'appelle maintenant la « route de Dempster », on a commencé l'arpentage. Quant à la route de la chaîne de Nahanni, un contrat a été aussi adjugé pour l'empierrement sur un parcours de 80 milles. Enfin, on a terminé l'arpentage sur une longueur de 100 milles en vue de la construction de la route entre la rivière Ross et Carmacks.

Projets divers

Dans le cadre de la catégorie générale des projets divers, la Direction socio-cupe de plans, de levés, de dessins, de l'inspection des travaux, au point de vue technique, l'exécution des contrats, de l'administration des travaux, au point de vue technique, pour le compte d'autres directions et d'autres ministères, quand il s'agit de routes, de voies d'accès, d'ouvrages d'art, de terrains de stationnement, de l'aménagement de zones, de services publics. Le volume de ces travaux a augmenté progressivement depuis trois ans et, au cours des années 1963-1964, l'activité de la Direction dans ces domaines s'est étendue à toutes les provinces et aux territoires du Nord. Les travaux effectués dans les Territoires du Nord-Ouest ont une importance particulière. Dans la région de Yellowknife, on a continué pour le compte du ministère des Mines et des Relevés techniques la construction d'un poste souterrain contrôlant le réseau des zones sismiques et les secousses de longue amplitude. Il y a seulement quelques postes de ce genre dans le monde et celui de Yellowknife revêt une grande importance, puisqu'il est situé dans un endroit presque idéal pour enregistrer les tremblements de terre sur la côte ouest, au Japon, aux Indes occidentales et ailleurs dans un rayon d'au moins 2,000 milles.

La Direction a joué un grand rôle au point de vue technique dans le réaménagement des installations essentielles, le rétablissement des services, les réparations et la reconstruction rendus nécessaires à la suite des crues printanières de 1963 à Hay River et à Fort Simpson. La Direction a aussi pris à sa charge les études techniques et la construction en ce qui touche les routes et les services d'aqueduc et d'égouts en vue de l'établissement d'une nouvelle subdivision à Hay River.

La Direction a prêté son concours au service de télécommunications des chemins de fer nationaux afin de trouver un emplacement pour un câble aérien jusqu'à Inuvik, de même qu'au ministère des Affaires du Nord et des Ressources nationales à l'égard du tracé d'un approvisionnement d'eau à Rae et d'enquêtes sur des installations d'approvisionnement d'eau et d'égouts à Tuktoyaktuk et à Fort Providence.

son intermédiaire entre le mille 48 et le mille 94. A la fin de 1963, le Canada a donc conclu un accord avec les Etats-Unis à la suite duquel le ministère des Travaux publics a reçu l'autorisation de louer l'outillage essentiel afin de maintenir la route carrossable pendant toute l'année à titre expérimental, pendant une période d'un an.

Etude des retombées (Alberta)

Au cours de 1961, à la demande de l'Organisation des mesures d'urgence, la Direction a mis sur pied et a commencé une étude de tous les édifices du gouvernement fédéral au Canada, en vue d'établir quels sont les locaux de sous-sol qui offrent une protection convenable contre les retombées radioactives. L'Organisation des mesures d'urgence a demandé à la Direction, à cause de l'expérience de 1964 pour déterminer quelle protection contre les retombées s'offre au public dans la province de l'Alberta. L'OMU a en outre demandé de créer des méthodes que l'on pourrait utiliser dans le cas d'une étude future à l'échelle nationale. On a confié à la Direction la mise sur pied et la mise en œuvre de l'étude de 1964 et, en février et en mars, on a élaboré des plans et des méthodes afin que le travail sur place puisse commencer à la mi-mai. On prévoit que l'étude nécessitera trois ou quatre mois de travail et que les conclusions en seront connues à l'automne 1964.

Parcs nationaux

La construction s'est poursuivie, au cours de l'année, pour le compte du ministère des Affaires du Nord et des Ressources nationales, sur les grands routes et les voies secondaires qui traversent les parcs nationaux dans les territoires du Nord-Ouest et du Yukon.

Dans les parcs nationaux, on a continué les derniers travaux de construction de la grande route de Banff à Jasper et de Banff à Windermere, de même que la construction de la route entre les lacs Medicine et Maligne et la route Jasper-Edmonton de Jasper jusqu'à l'entrée du parc de Jasper, la route de la montagne Chief dans le parc national des lacs Waterton et une voie d'accès qui conduit à l'entrée du parc national de l'île Elk.

Dans le parc national de Prince Albert, les travaux se sont poursuivis sur la route panoramique Waskesiu; dans le parc national de Riding Mountain, le chemin d'accès aux pentes à ski d'Agassiz est presque terminé.

Dans la région de l'est, on a continué la réparation du pont de l'anse Cove-head dans le parc national de l'île du Prince-Edouard. Les tempêtes et les glaces ont causé de grands dommages à ce pont au cours de l'hiver dernier. On a donc élaboré des plans afin de le remplacer l'hiver prochain par un pont en béton armé. On a adjugé un contrat pour la construction d'une route qui reliera Eastport à la route transcanadienne, dans le parc national de Terra Nova. A la fin de l'année, les travaux étaient terminés dans une proportion de 30 p. 100 et on prévoit l'achèvement de la route à l'automne 1964.

En plus des programmes de construction précités, la Direction a entrepris au sujet des parcs nationaux plusieurs études et l'établissement de plans. Dans les parcs de l'Ouest et dans ceux des provinces Maritimes, on a fait l'examen critique du revêtement à l'aide de la poutre de Benkelman. Dans les parcs nationaux de l'Ouest, on a fait des enquêtes et établi des plans pour le lac Louise inférieur et les chemins d'accès au lac Maligne qui conduisent au mont Norquay, au mont Whitehorn et au mont Revelstoke. On a également fait une étude de la circulation dans la région de Banff.

On a accompli beaucoup de travail théorique sur la pression exercée par les glaces, le creux des lames au cours des tempêtes, le comportement des vents et des vagues formées par les vents, mais on s'est aperçu de la nécessité d'étudier sur maquette et on a construit, au coût de \$55,000, une maquette à l'échelle du détroit de Northumberland. L'année prochaine on étudiera sur maquette le comportement des marées — dans leurs effets changeants sur l'érosion, l'envasement des ports et autres zones critiques du détroit; on étudiera en outre les déplacements des glaces à proximité du passage.

Les enquêtes menées au cours de la première phase de l'étude ont démontré que le problème des glaces dans le détroit de Northumberland s'avèrera le plus difficile à résoudre. Dans cet esprit, on a effectué des vols de reconnaissance au cours de l'hiver et du printemps derniers afin de faire des observations et de prendre des photographies. Les avions ont suivi un trajet préalable au-dessus du détroit et ont pris note des formations et des mouvements des glaces. On a aménagé un panneau d'observation sur le brise-lames de Borden pour mesurer la pression exercée pendant la débâcle du printemps par les glaces précédemment retenues sur la rive.

Au cours de l'année financière 1964-1965, on poursuivra ces études et l'élaboration des plans qui en découleront.

Réseau routier du Nord-Ouest

A la suite d'une décision prise au cours de 1963-1964 et qui constitue l'un des points saillants de l'exercice, le ministère des Travaux publics assume maintenant la responsabilité de l'entretien et de l'exploitation du réseau routier du Nord-Ouest. Ce réseau comprend 1,220 milles de la grande route de l'Alaska en territoire canadien, 112 milles du raccourci Haines au Canada et plusieurs voies d'accès à des aéroports.

La grande route de l'Alaska fut construite en 1942 par la *Public Roads Administration* du Gouvernement des Etats-Unis. En 1945, l'Armée canadienne prit à sa charge le tronçon canadien de la grande route. A ce moment-là, l'importance militaire du réseau était primordiale. Depuis lors, les besoins du public se sont accrus tandis que l'importance militaire de la route a diminué.

En conséquence, le Cabinet a approuvé, le 2 octobre 1963, une recommandation du Comité consultatif de la mise en valeur du Nord Canadien visant à faire assumer, à partir du 1er avril 1964, la responsabilité du réseau par le ministère des Travaux publics, laquelle, jusqu'à cette date, avait incombé au ministère de la Défense nationale.

Depuis octobre 1963, le Ministère a procédé à une évaluation complète de cette entreprise et a fait connaître ses besoins au point de vue organisation, personnel et matériaux. La prise de possession s'est effectuée progressivement dans tous ses détails. Cette opération comprenait la décharge de la part de l'Armée canadienne de toutes les responsabilités d'entretien et d'exploitation et l'entrée en fonctions du personnel civil. Il a fallu d'autre part prendre les mesures nécessaires pour le prêt éventuel du personnel militaire de base capable d'assurer la continuité des services et le recrutement du nouveau personnel pendant la période de transition.

Le raccourci Haines relie la ville portuaire de Haines (Alaska), à la route de l'Alaska à Haines Junction, environ 100 milles au nord-ouest de Whitehorse. Un parcourt de 42 milles, de cette route d'une longueur totale de 159 milles, se trouve dans l'enclos de l'Alaska, 52 milles traversent la Colombie-Britannique et 65 milles, le Yukon. Au mille 48 et au mille 94, on trouve des stations de pompage pour les pipe-lines qui assurent le transport du pétrole. Depuis quelques années on a livré à la circulation, pendant toute l'année et sans de trop grandes difficultés, la route qui conduit à ces stations de pompage. Cependant, les chutes de neige les plus importantes et les pics amoncellements se produisent sur le tron-

L'érection du tablier en acier a commencé en septembre 1963 et on a terminé la première travée en octobre. On a ensuite dirigé cette travée de l'autre côté de la rivière, par flottement, et on l'a mise en place, d'une part sur la culée de la rive outaouaise, d'autre part sur la pile numéro 4. Puis on a érigé une seconde travée, permanente, entre la rive de Hull et la pile numéro 1.

On avait presque terminé l'infrastructure à la fin de la saison de 1963 et la fabrication des longerons jumeaux en acier qui enjamberont la rivière entre les piles 1 et 4 était aussi en bonne voie.

On s'attend à ce que le pont et les voies d'accès que les gouvernements provinciaux construisent actuellement soient terminés et livrés à la circulation d'ici octobre 1965.

Autres ponts fédéraux

Le Ministère prend à sa charge l'entretien et l'exploitation de certains ponts, propriété du gouvernement fédéral qui, l'an dernier, a dépensé \$618,000 à cet effet. Parmi les travaux d'entretien importants, on note: remplacer le parapet du pont ferroviaire de New West Westminster qui enjambe le fleuve Fraser en Colombie-Britannique; remplacer le tablier en bois du pont interprovincial de Matapédia entre le Nouveau-Brunswick et le Québec; peindre l'ossature d'acier du pont Perley à Hawkesbury, celle du pont Pembroke-Ile-aux-Allumettes entre l'Ontario et le Québec et les chausées Lasalle, à Kingston. A ce dernier endroit, on a examiné et réparé les pièces mécaniques du pont à bascule.

Chaussée du détroit de Northumberland

L'élaboration de plans pour l'établissement d'une chaussée et d'ouvrages connexes reliant l'Ile du Prince-Edouard au Nouveau-Brunswick à travers le détroit de Northumberland continue à aller bon train.

Au cours des dernières années, on a donné plus d'ampleur aux aménagements des transbordeurs entre l'Ile du Prince-Edouard et le continent et on les a modernisés, mais l'augmentation sensible dans la circulation des automobiles et des camions a fait ressortir la nécessité d'améliorer les installations. Le gouvernement fédéral a fait un premier pas dans ce sens en 1956, lorsqu'il a entrepris une étude économique et un programme de forages préliminaires afin de déterminer s'il serait possible de trouver de la roche sur place si l'on venait à construire une chaussée. Le ministère des Travaux publics a entrepris, au cours de l'année financière 1958-1959, une étude poussée avec l'aide d'experts d'autres ministères. On s'est de plus assuré les services d'une société d'ingénieurs-conseils à qui on a confié la tâche de présenter un rapport général sur la possibilité de construire un passage; le rapport doit aussi indiquer le coût approximatif de ce travail. Sur la foi des conclusions de ces rapports, le gouvernement fédéral a fait un pas de plus en décembre 1962 en concluant un accord avec la *Northumberland Consultants Limited* par lequel il demande de préparer, à la suite d'études préliminaires et d'enquêtes pertinentes, un rapport complet sur tous les genres de passages économiquement possibles.

Au cours de la saison 1963, on a exécuté à partir de navires de surface des prélèvements par carottage du lit de la mer le long de l'axe projeté. La récupération a été excellente, en moyenne de 98 p. 100. On a aussi effectué en 1963 une étude sismique afin d'étudier en coupe le banc rocheux et l'épaisseur de la terre de recouvrement le long du passage que l'on se propose de construire. Les résultats sont actuellement à l'étude.

Au cours de l'année, on a fait des enquêtes afin d'établir s'il serait possible de trouver sur place les matériaux nécessaires à la construction d'un passage complet ou partiel. On a étudié en détail toutes les sources d'approvisionnement en roche d'armature, remblai en vrac et agrégat de béton, situées à une distance raisonnable du point de vue économique.

s'est avérée d'une valeur inestimable dans l'élaboration de plans équilibrés et rationnels. Les ingénieurs des quatorze bureaux régionaux ont effectué plusieurs milliers d'enquêtes au sujet de travaux possibles dont un grand nombre se concrétiseront et offriront un service public et contribueront à l'essor économique en général.

DIRECTION DU GÉNIE (AMÉNAGEMENT)

La clôture de l'exercice financier 1963-1964 coïncide avec le deuxième anniversaire de la Direction du génie (aménagement).

L'activité de la Direction s'est d'abord confinée à tracer, à dessiner et à construire la route transcanadienne; au début, la Direction s'est aussi occupée de ponts, de services d'essais en laboratoire et sur place, en ce qui touche la construction. Au cours des années, le champ de son activité s'est beaucoup élargi et comprend maintenant plusieurs autres branches, notamment le travail technique et la construction de routes qui traversent les parcs nationaux; tous les chemins d'exploitation au Yukon et dans les Territoires du Nord-Ouest; les travaux d'aménagement de zones; les plans pour les systèmes d'approvisionnement d'eau et pour l'évacuation des eaux usées; les plans d'urgence relatifs aux routes et aux ponts; diverses entreprises particulières, comme la construction des postes d'enregistrement sismiques et les études sur les retombées radioactives.

Les essais en laboratoire et sur place n'ont pas cessé de s'accroître dans le domaine des essais techniques spécialisés et des services, afin de répondre aux besoins créés par une plus grande activité dans la construction et aux progrès technologiques.

La Direction s'occupe maintenant de plans techniques et de construction pour le compte de plusieurs autres ministères et organisations du gouvernement fédéral et leur fournit des services d'essais.

Route transcanadienne

La Direction est chargée de l'application de la Loi sur la route transcanadienne, qui porte sur la construction d'une route à deux voies, pavée et utilisable par tous les temps. Les gouvernements fédéral et provinciaux s'en partagent le coût. On trouvera, pour l'année 1963-64, dans le rapport des procès-verbaux de la Loi sur la route transcanadienne, tous les détails de la marche de la construction, des engagements pris par chaque province et des paiements versés à chacune d'elles selon les termes de certains accords; on y verra aussi les détails de la construction de la route à travers les parcs nationaux.

Pont MacDonald-Cartier

La construction du pont MacDonald-Cartier, qui relie les villes d'Ottawa (Ontario) et de Hull (Québec) s'est poursuivie au cours de l'année. Voici les points saillants de cette entreprise: la participation du gouvernement fédéral et des gouvernements de l'Ontario et du Québec; la nomination de trois sociétés d'ingénieurs-conseils constituées en entreprises et connues sous le nom de Conseils du pont MacDonald-Cartier, et enfin, l'envergure des travaux et les techniques de construction adoptées.

La construction a débuté en février 1963. La construction des piles et des culées a commencé, pour sa part, en mai 1963 et a été pratiquement terminée au cours de cette année-là. On a utilisé une méthode peu connue pour l'infrastructure, méthode qui nécessitait, pour l'érection des piles, la fabrication de caissons en béton munis de batardaux en acier et en bois placés sur une péniche de lancement. On a remorqué la péniche au milieu de la rivière et on l'a fait basculer de côté en noyant ses ballasts internes. On a fait glisser de la péniche le caisson, qui a flotté et que l'on a ensuite dirigé vers son emplacement définitif.

à Prince Rupert et l'on a entrepris l'exécution d'améliorations portuaires importantes à Westview.

L'élaboration de plans d'aménagement touchant un nombre considérable de ports, tant ceux qui existent déjà que les nouveaux, a avancé au cours de l'année. Sur la côte Est, le transport par voie maritime vers les deux provinces insulaires du Canada a un caractère essentiel. Des plans visant à agrandir les installations portuaires, et à faciliter le transport toujours croissant de la marchandise, sont maintenant sur la table à dessin. La Direction effectue actuellement des études en vue de nouvelles installations de tête de ligne à Digby, terminus en Nouvelle-Ecosse du transbordeur de la baie de Fundy, qui part de Saint-Jean (Nouveau-Brunswick).

L'établissement d'une industrie de métaux de base dans la partie septentrionale du Nouveau-Brunswick, et la création du complexe industriel qui en découlera nécessiteront des installations portuaires après dragage le long de la côte nord du Nouveau-Brunswick.

D'autre part, l'expansion des moyens de production de l'industrie du papier-journal dans les régions du Bas Saint-Laurent et de Gaspé entraînera l'agrandissement des installations portuaires. La Direction a fait des enquêtes à différents endroits; on a effectué des études-types et dressé des plans. On s'attend à commencer le travail au cours du prochain exercice financier.

Au cours de sa première année d'existence, le brise-lames de conception révolutionnaire construit à Baie Comeau a démontré sa valeur. Cet ouvrage dont les murs sont creusés de cavités a soulevé un grand intérêt dans plusieurs pays du monde. Il a été créé par le Conseil national de recherches, à la demande du Ministère.

Le Ministère a mis en adjudication la construction d'un ouvrage unique conçu pour résister à la glace et qui doit être érigé dans le fleuve Saint-Laurent afin de protéger l'emplacement de l'Exposition Universelle de 1967. Cet ouvrage, au coût d'environ \$13,000,000, doit être terminé à la fin de 1965.

Au cours de l'année, la Direction a poursuivi ses efforts en vue d'améliorer tant les dessins que les méthodes de construction des ouvrages. Les ingénieurs de la Direction ont collaboré étroitement avec les agents du Conseil national de recherches à des études d'ouvrages maritimes et d'améliorations portuaires. L'étude sur maquette de la côte à proximité de Rustico (I. P.-E.) où les chenaux et les plages sont dans un état instable, est l'une des plus poussées dans le domaine hydrographique jamais entreprise pour le Ministère. C'est à l'inspiration conjointe du Ministère des Travaux publics et du Nord canadien et des Ressources nationales que cette étude a été lancée. Il s'agissait de dresser les plans d'un passage pour un nouveau pont à l'entrée du port sans entraver les travaux d'entretien et d'amélioration qui s'y poursuivent.

À la demande du Ministère, le laboratoire de l'hydrologique du Conseil national de recherches a construit la maquette d'un lit mobile pour étudier les effets des vagues de la marée et des échantures du littoral. On a aussi poursuivi des études sur maquette en vue de l'amélioration des installations portuaires à Codroy, à St. Brides et à Branch (Terre-Neuve). Dans les cas où les questions de protection et d'envasement posent des problèmes, le Conseil national de recherches s'est intéressé aux travaux portuaires projetés à Dingwall, Pleasant Bay, Inverness et Saulnierville en Nouvelle-Ecosse; à Caraguet et Belledune Point, au Nouveau-Brunswick, et à Chandler, New Richmond, Matane et Gros-Cacouna, dans le Québec.

Le Ministère a aussi mis sur pied des études et des enquêtes qui utiliseront les données déjà existantes afin de déterminer les caractéristiques des vagues d'après des données que nous possédons sur les vents. On a imaginé une méthode d'analyse statistique de ces données; elle a permis d'établir des courbes, reliant la fréquence d'intensité des vagues à l'existence probable de courants. On a déjà utilisé cette méthode pour des travaux portuaires importants sur la côte Est et elle

poursuit (c'est, on se le rappellera, à la suite d'une recommandation de la Commission royale d'enquête sur l'organisation du gouvernement que le Cabinet a décidé de faire dresser cet inventaire). Les principaux ministères qui détiennent des biens de ce genre font parvenir tout à tour à la Direction leurs inventaires respectifs dont la compilation a été commencée. On s'attend que 35 ministères et organismes participent à tout ce travail.

DIRECTION DU GÉNIE (PORTS ET RIVIÈRES)

La Direction du génie (ports et rivières) a exécuté des travaux le long des côtes du Pacifique, de l'Arctique et de l'Atlantique, de même que dans toutes les provinces et tous les territoires du Canada, sauf au Yukon. Ces travaux comprennent la construction et la réparation de quais, de brise-lames, de cales de halage, de rampes de lancement, d'ouvrages de protection, ainsi que l'entretien et l'amélioration, par dragage, des chenaux de navigation.

La Direction a continué à exploiter des bassins de radoub importants à Esquimalt (C.-B.), et à Lauzon (P.Q.), de même que des installations pour les réparations mineures des navires, à Selkirk (Man.). La Direction s'est aussi chargée de l'entretien et de l'exploitation de barrages régulateurs sur le cours supérieur de la rivière Outaouais et d'un barrage-écluse sur la rivière Rouge. On a dragué en 426 endroits sous la surveillance de la Direction; on a confié 70 p. 100 du travail à des entrepreneurs et le reste, soit 30 p. 100, a été exécuté avec le propre outillage de la Direction.

Au cours de l'année qui fait l'objet du présent rapport, l'élaboration de plans de travaux maritimes a relégué dans l'ombre la construction sur place, notamment en ce qui concerne la création de nouveaux ports et des améliorations importantes à apporter aux ports existants. On a presque terminé la construction d'un grand nombre de travaux d'entretien dans le cours des années précédentes et l'on a commencé à élaborer des plans pour plusieurs travaux majeurs que l'on compte réaliser en 1964.

La modernisation des installations portuaires de Saint-Jean (Terre-Neuve) s'est poursuivie et la plupart des contrats importants ont été terminés en 1963. Ce programme de réaménagement touchera son terme en 1964; le coût total en aura été de plus de \$17,000,000. La Direction a créé plusieurs postes de mouillage pour les navires de haute mer et les a munis de vastes installations, notamment pour la manutention, l'entreposage et le déchargement. Le quai principal pour les cargaisons est maintenant en service depuis quelques mois et l'utilisation que l'on en a faite au cours de cette période initiale a dépassé les prévisions. Cette installation portuaire va stimuler grandement l'économie de toute la péninsule Avalon, puisque les frais de transport de presque tous les biens de consommation vont diminuer sensiblement.

A Charlottetown, à Borden, à Sydney et à Dartmouth, la construction relative à un certain nombre d'autres travaux d'améliorations portuaires sur la côte s'est continuée à un coût qui a dépassé un million de dollars. Certains de ces ouvrages ont été entrepris pour le compte des ministères du Transport, de la Défense nationale et des Mines et Relevés techniques.

On a commencé la construction d'un quai de transbordement à Rivière-du-Loup et à Saint-Siméon, dans le Bas Saint-Laurent.

On a réalisé le premier programme important de construction d'installations dans les ports des Grands Lacs, visant à faciliter l'utilisation maximum de la voie maritime du Saint-Laurent. Les ouvrages et les têtes de ligne à Toronto, à Port-Credit, à Hamilton et à la Tête des Lacs terminés depuis quelques années, sont maintenant en pleine activité. On a commencé à Hamilton l'exécution des premiers contrats pour la construction en plusieurs stades d'un nouvel aménagement, à l'emplacement de la rue Sainte-Catherine.

Sur la côte ouest, on a terminé la tête de ligne du transbordement de l'Alaska

Maints facteurs déterminent le montant total des dépenses directes. Durant l'année financière 1963-1964, l'un des facteurs déterminants a été la prise en charge par la Direction de la régie et de l'entretien d'environ 90 nouveaux immeubles construits par la Direction de la construction des édifices.

Dans le secteur de l'entretien, la Direction a pu réaliser des économies sup-
plémentaires en réduisant le coût moyen par pied carré du nettoyage des surfaces à l'intérieur des édifices. Elle a eu recours pour ce travail quotidien de moins en moins à son propre personnel et de plus en plus à l'entreprise privée, puisque l'expérience a prouvé que les services de l'entreprise privée sont moins onéreux. Cette ligne de conduite se poursuit progressivement, à mesure que décroît en nombre, de façon normale, le personnel de la Direction.

Aux Communes, on a amélioré le système de traduction orale simultanée de façon à lui donner une plus grande extension dans les Chambres et dans les salles de réunion de l'immeuble de l'Ouest. Pour la première fois, le Ministère a fait usage à cet effet d'appareils électroniques à transistors qui, étant de modèle portable, peuvent être utilisés à peu près partout et, donc, dispensent d'installations permanentes.

Au cours du mois de mai 1963, nous pensons avoir contribué pour une bonne part au succès d'une conférence de l'OTAN, qui s'est tenue à Ottawa, en assurant aux quelque 1,200 participants (venus de 15 pays) logement, ameublement et autres facilités.

Au cours de l'année, le nouveau ministère de l'Industrie ainsi que celui de la Production de Défense ont été convenablement logés, ensemble, dans des locaux loués expressément pour eux et dont les aires totalisent 90,000 pieds carrés. Cette location s'imposait du fait que la Couronne ne disposait pas de locaux assez grands dans les environs.

Sur l'avis de la Division du logement, qui procède continuellement à des révisions, avec la collaboration des fonctionnaires de district et des ministères concernés, la Direction a recommandé la construction de nouveaux immeubles, ou la modification élaborée d'immeubles existants, à 65 endroits différents, le tout impliquant une superficie nette de 809,000 pieds carrés. De plus, on a choisi environ 160 emplacements pour petits bureaux de poste dont la construction serait intégrée au programme des travaux d'hiver.

Parallèlement à l'élaboration des normes de logement, travail qu'elle poursuit avec succès, la Direction a participé aux séances d'un comité chargé d'étudier des besoins fort divers : bureaux, laboratoires, hôpitaux, écoles, pénitenciers et autres institutions du genre, magasins, ateliers, maisons d'habitation, etc. Ces études portaient sur des constructions dont la superficie libre globale atteindra approximativement 500,000 pieds carrés et qui sont déjà en voie de construction ou à l'état de projet.

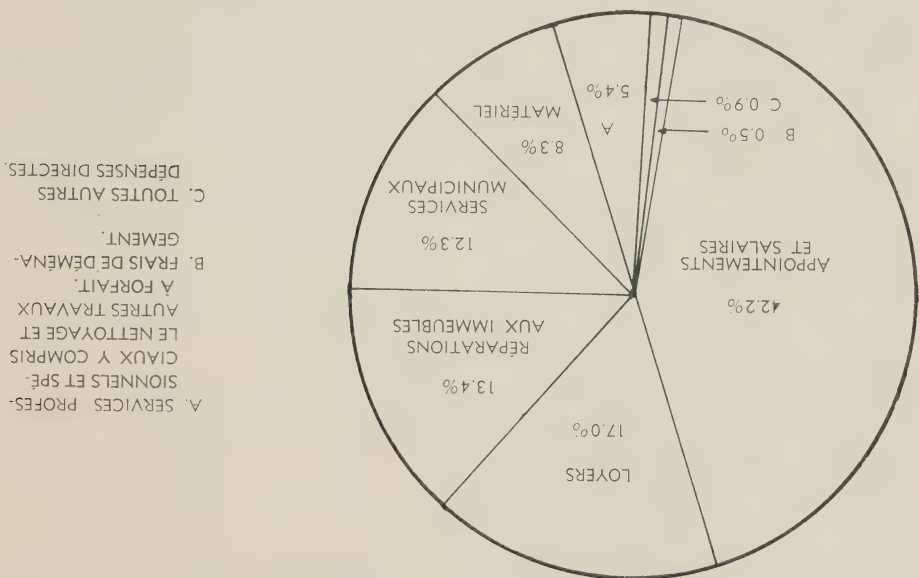
Comme par le passé, tout a été mis en œuvre pour louer à des tarifs commerciaux, dans les immeubles de la Couronne, les locaux devenus vacants et ne pouvant convenir à aucun des services de l'État. Ces locations ont rapporté \$338,206 au cours du dernier exercice financier. Il se trouve maintenant que le taux d'occupation dans les immeubles de la Couronne dépasse 97 p. 100; voilà qui prouve l'efficacité de l'administration de la Direction.

Les logis propriétés de la Couronne et administrés par la Direction en tant que logis loués ont rapporté \$1,510,338 durant l'année. Les appareils de téléphone mis à la disposition du public dans les édifices fédéraux, en sus de répondre à un besoin véritable, ont rapporté au total \$23,744 en commissions.

La Division des terrains a acquis au coût total de \$5,284,029.83, en les achetant ou en les expropriant, 226 terrains. Vers la fin de l'année financière, elle était en train d'acquiescir environ 160 autres terrains requis pour l'exécution de programmes courants ou futurs.

Le nouvel inventaire des biens immobiliers et biens-fonds de la Couronne se

TABLEAU 2

RELEVÉ COMPARATIF DES DÉPENSES
DIRECTES EXPRIMÉES EN POURCENTAGE

La multiplicité et le détail des opérations de réparation et d'entretien sont précisés au tableau III.

TABLEAU 3

CONTRATS ADJUGÉS EN 1963-1964 POUR RÉPARATIONS ET ENTRETIEN

(Valeur exprimée en milliers de dollars)

DISTRICT	TOTAUX					
	Nom. Valeur	Nom. Valeur	Nom. Valeur	Nom. Valeur		
Jusqu'à \$1500	\$	12,274	2,130	376		
					1,013	
Plus de \$5000	\$	12,779	4,543	1,400		
					129	
Saint-Jean (Terre-Neuve)	580	56	16	45		1	5
	Charlottetown, I.P.E.	15	8	6	14	—
Halifax	700	85	9	23	3	21
Saint-Jean, N.-B.	540	71	10	62	2	13
Québec	1,099	110	21	28	6	48
Montréal	211	84	33	83	16	146
Ottawa-Hull	3,760	921	162	438	42	356
Ottawa, district	174	54	19	45	4	52
Toronto	1,507	200	66	66	15	187
London, Ontario	248	60	12	37	9	81
Winnipeg	550	84	13	35	3	44
Saskatoon	590	119	12	29	2	25
Edmonton	1,450	116	16	48	17	288
Vancouver	850	162	20	60	9	134

Le même jour (1er avril 1964), un autre établissement fédéral, celui de Fort Peppercell, à Saint-Jean, Terre-Neuve, fut confié à la responsabilité entière du ministère des Travaux publics. Là encore il a fallu faire diligence pour procéder à une ample planification. Outre un personnel de 184 civils, on devait y disposer de 147 bâtiments, de véhicules moteur et autres, pour le transport, et même de l'ancien quai de l'aviation américaine dans le port. Le nécessaire a été fait durant l'année étudiée ici.

Depuis la même date encore, le Ministère a pris en main la direction et l'entretien du réseau routier du Nord-Ouest. C'est la Direction du génie (aménagement) qui remplira le principal rôle dans cette entreprise, mais la Direction de la gestion des immeubles lui fournira toutes les facilités de logement requises: habitations, constructions pour l'administration et l'entretien, cela depuis un point situé à 85 milles de Dawson Creek jusqu'à la frontière de l'Alaska, y compris le tronçon de la route Haines qui se trouve en territoire canadien. Ces opérations nécessiteront la construction, à Whitehorse, au Yukon, d'un nouveau bureau de district qui reprendra toutes les fonctions des Travaux publics dans le territoire du réseau routier en question et dans le Yukon.

Ce qui atteste de l'ampleur de la tâche confiée à la Direction ce sont, en sus d'un certain nombre d'édifices publics, les quelque 500 maisons d'habitation qui lui étoient en même temps. De plus, elle devra assurer maints services auxiliaires autrefois assurés par l'Armée, tels que les écoles dans les régions éloignées, les services ambulanciers au long de la route, les moyens de transport à Fort Nelson et à Whitehorse.

Reste que la plus grande tâche qui a été confiée à la Direction est l'administration de l'ensemble d'immeubles — près de 3,000 — du genre « tout usage » que le ministère des Travaux publics possède ou loue et qu'il met à la disposition des ministères et organismes du Gouvernement. Le tout représente une superficie d'approximativement 31 millions et demi de pieds carrés, cette superficie totale étant géographiquement répartie comme suit:

SUPERFICIE NETTE UTILISABLE

Frais d'exploitation Loyers compris \$	Frais d'exploitation Loyers compris \$	Immeubles de la Couronne		Locaux loués		Frais d'exploitation Loyers compris \$
		Nom. Pl. CA. (1000)	Nom. Pl. CA. (1000)	Nom. Pl. CA. (1000)	Nom. Pl. CA. (1000)	
Terre-Neuve	89	479	40	34	788,632,228	
Nouvelle-Ecosse	93	761	48	155	1,389,816,12	
Ile-du-Prince-Edouard	11	160	5	2	237,198,86	
Nouveau-Brunswick	79	760	34	39	994,741,61	
Québec (sauf Hull)	327	4,326	264	797	6,891,802,43	
Ontario (sauf Ottawa)	368	5,339	286	900	7,895,766,35	
Manitoba	90	1,328	71	113	1,639,820,40	
Saskatchewan	148	1,012	116	78	1,420,746,33	
Alberta et T.N.-O.	133	1,341	143	198	2,511,130,96	
Colombie-Britannique et T.Y.	135	2,386	112	212	3,193,268,34	
London, Angleterre	1	105	4	5	442,134,62	
Etats-Unis	—	—	3	6	44,540,22	
Etranger, autres	—	—	1	1	6,139,91	
Ottawa-Hull	124	8,911	157	1,911	18,810,071,63	
1,598	26,908	1284	4,451	46,266,131,06		

Les dépenses directes qui figurent dans ce tableau ont été acquittées par notre Division des opérations pour l'entretien, les modifications et l'entretien ménager en général. Au tableau II, qui suit, on trouvera le relevé comparatif, exprimé en pourcentage, des fonds dont la dépense a été indiquée au tableau précédent.

Il a été décidé que la Direction constituerait des stocks plus considérables d'articles dont la demande croissante justifierait l'entreposage. Le montant des achats remboursables, effectués pour les ministères et organismes, a dépassé \$50,000 et nécessite la préparation de 237 pièces justificatives d'effets à recevoir.

En collaboration avec la Commission du Ministère sur les normes établies pour les matériaux et l'équipement, la Direction a publié un ouvrage bilingue qui contient les 300 cahiers des charges et normes (accompagnées de dessins) qui régiront les achats massifs; nous y avons tenu compte des directives de l'Office des normes du gouvernement canadien.

Pour vérifier si les articles commandés, mobilier et articles d'équipement, sont conformes aux spécifications et normes imposées, le personnel du secteur des normes ainsi que celui qui est préposé aux essais en laboratoire en feront l'inspection à la fabrication, puis à l'arrivée de la commande.

Les fournisseurs font l'objet d'une enquête avant d'être acceptés comme tels de façon à éviter la soumission d'échantillons, procédé qui retarde la livraison des commandes et les rend plus onéreuses. En vérifiant ainsi le travail et les possibilités de production d'un éventuel fournisseur, on s'assure aussi que ce dernier n'accepte pas plus de commandes qu'il ne peut en exécuter.

Afin que tous les ministères et directions puissent disposer des meilleurs services de distribution possible, la Direction possède de vastes magasins régionaux à Ottawa, Toronto et Montréal; des entrepôts plus petits à Saint-Jean (Terre-Neuve), Halifax, Saint-Jean (Nouveau-Brunswick), Québec, Winnipeg, Saskatoon, Edmonton et Vancouver. L'exploitation de ces derniers établissements relève des fonctionnaires régionaux placés sous la direction et soumis aux directives du siège central. Les trois grands magasins régionaux sont toutefois sous la surveillance directe de la Direction.

Le mobilier et les fournitures qui sont en ce moment propriété des ministères et organismes fédéraux vaudrait, selon les inventaires, environ \$46,107,000. Le Comité d'enquête du Ministère a tenu 20 réunions afin d'étudier les demandes de mise au rebut; il a de plus adressé à la Corporation de disposition des biens de la Couronne 280 rapports portant sur des biens excédentaires. Au total, 369 demandes de mise au rebut provenant des bureaux régionaux ou du bureau central ont été examinées durant l'exercice financier 1963-1964.

DIRECTION DE LA GESTION DES IMMEUBLES

Durant les neuf années de son existence la Direction a vu sa double fonction — administration et gestion — prendre de plus en plus d'importance en raison surtout de l'adoption de méthodes et de politiques améliorées dans ses deux domaines propres. À cette croissance a correspondu une multiplication de responsabilités ainsi que l'on peut s'en rendre compte, par exemple, en considérant les nouvelles tâches assumées par la Direction au cours du dernier exercice financier. On lui a confié, le 1er septembre 1963, la responsabilité de l'administration, de la direction et de l'entretien de l'ancienne base de l'aviation américaine (SAC) à Frobisher Bay, dans les Territoires du Nord-Ouest, ainsi que la régie du complexe d'habitations communautaires du même endroit.

On lui a transmis officiellement, le 1er avril 1964, la direction de tout l'établissement de Fort Churchill, au Manitoba. Il y a là quelque 500 habitants sur une superficie de 1,300,000 pieds carrés. Routes, eau, égouts, centrale électrique, chauffage centralisé, logement, ravitaillement, déblaiement de la neige, protection contre l'incendie: tout cela et bien d'autres services nécessaires dans un établissement semblable incombent désormais à la Direction. Pressée par le temps, elle a dû procéder à un rythme accéléré au maximum. D'autre part, des pourparlers sont en cours avec le gouvernement provincial concerné pour déterminer qui aura juridiction sur cette communauté à l'avenir.

DIRECTION DES ACHATS ET DES APPROVISIONNEMENTS

Conformément à la réglementation établie par le gouvernement canadien, la Direction achète ce qui est nécessaire aux différents secteurs des ministères pour bien fonctionner matériellement: produits et matériel d'entretien, matériaux de construction, meubles et fournitures pour bureaux et immeubles, combustible et maints autres articles dans ces catégories.

Le volume des achats est fonction des crédits disponibles, les paiements s'effectuant selon les modalités indiquées ci-après:

1. Produits et matériel d'entretien
Matériaux de construction
Équipement spécial, etc.

2. Mobilier et fournitures de bureau
requis par tous les ministères fédéraux
Mobilier et fournitures pour des maisons
telles que:
Rideau Hall et La Citadelle
Les résidences du Premier Ministre
Habitations des Territoires du Nord-Ouest
relavant du Ministère
Mobilier et fournitures pour la
Chambre des Communes et le Sénat
Mobilier et fournitures pour
les maisons des ministères à Londres
(où le ministère des Travaux publics
est chargé du logement de ces organisations)
Coffres-forts et coffrets de sécurité
Rayonnages
Meubles et équipement divers

3. Les combustibles.

charbon
mazout
gaz propane
gaz naturel
requis par le Gouvernement pour le chauffage sont achetés dans chaque province en recourant au procédé des commissions publiques
Carburant pour dragues
Essence et pétrole

Pour ces articles, les paiements sont effectués par la direction, division ou organisme requérant.

La division des achats, au siège central, a satisfait environ 6,500 réquisitions impliquant une dépense totale de \$8,335,000. De cette somme, 8 millions de dollars ont été employés à l'achat de produits canadiens. De leur côté, les acheteurs régionaux et ceux de Londres ont acheté sur place beaucoup de produits locaux. L'augmentation des achats effectués par les préposés au siège central comparativement à l'exercice financier précédent est attribuable à l'augmentation du nombre des articles spéciaux requis à l'occasion des conférences fédérales, des élections fédérales, à l'augmentation des commandes parlementaires, etc.

La Direction a reçu au total 16,310 commandes de 113 sources différentes, y compris 75 ministères ou organismes fédéraux.

Durant l'hiver, on a adjugé des contrats importants en conformité avec la politique de construction hivernale du Ministère.

On a pratiqué le mode d'achat par grosses quantités pour un nombre plus considérable de marchandises durant l'année. Par ailleurs, on a innové dans le domaine des soumissions en réclamant des prix qui restent en vigueur de six à douze mois durant.

divisions et services du Ministère auront été complétées. Des études préalables à la mise en application de standards pour la mesure du travail ont été faites en consultation avec la Division des services de direction. L'achèvement de cette étude aura pour résultat plus d'efficacité dans l'utilisation du personnel.

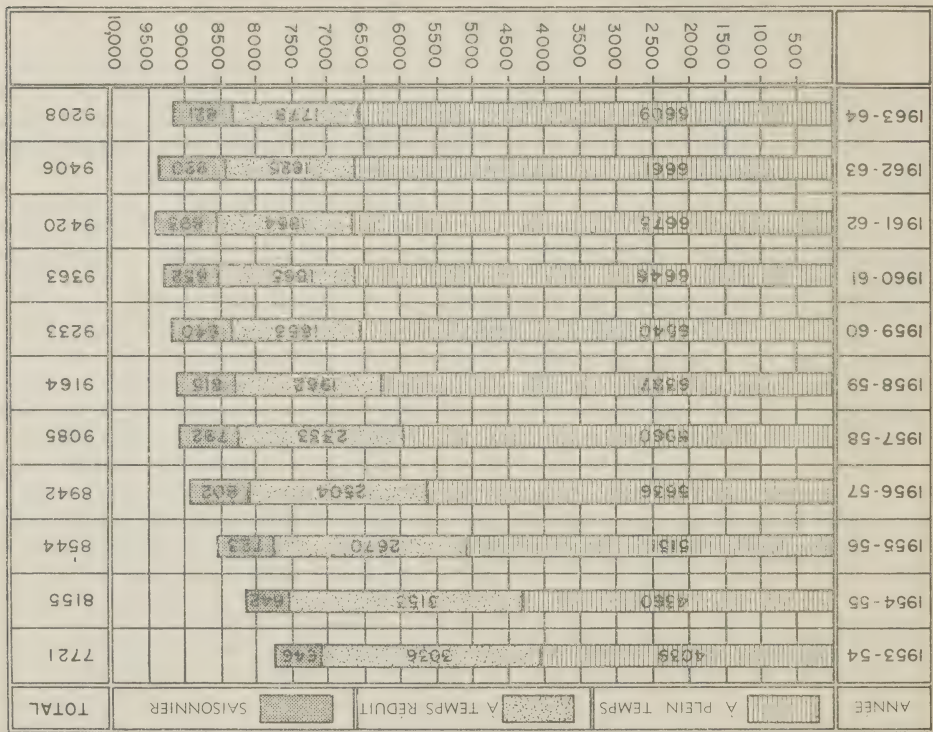
On a dû quelque peu abriter le programme d'entraînement et de perfectionnement par suite de la pénurie de personnel qualifié. On a pu cependant poursuivre maints programmes d'entraînement en vue de former des moniteurs ou des hommes de métier. La Direction, en outre, a fait tout le nécessaire pour que des membres du personnel des ministères puissent suivre des cours d'entraînement et de perfectionnement donnés sous les auspices de la Commission du service civil, de l'*American Management Association* et des universités. Enfin, en vertu du plan d'aide extérieure, on a pris des dispositions particulières pour faire donner à 30 fonctionnaires étrangers, en visite au Canada, un entraînement de spécialisation aux fonctions et opérations inhérentes aux Travaux publics.

Un agent de sécurité, nommé au cours de l'année, a déjà marqué des progrès dans l'analyse des données statistiques relatives aux accidents survenus dans les locaux du Ministère ainsi que dans la mise au point de mesures préventives. On s'attend que celles-ci soient appliquées dans tout le Ministère d'ici la fin du prochain exercice financier.

La Direction a encore fourni un secrétariat pour s'occuper du programme des primes à l'initiative, et des diverses campagnes (autorisées dans le Ministère) pour réunir des fonds, ou en faveur des obligations d'épargne du Trésor. Considérable a été la participation du personnel à toutes ces entreprises; ainsi, dans le cas des primes à l'initiative, on a pu accorder 35 primes, 15 p. 100 des suggestions ayant été retenues dont la mise en pratique permettra de réaliser une économie de l'ordre de \$12,300. Le Comité des primes à l'initiative a accordé une autorité plus grande dans ce domaine aux bureaux régionaux. On escompte cette année une participation encore plus massive des employés ainsi qu'une plus célérité dans l'appréciation des suggestions.

On a encore eu à déplorer, durant le dernier exercice, la pénurie de personnel qualifié sur les plans professionnel et technique. D'où la difficulté de pourvoir les postes devenus vacants, ou de longs délais. Dans ces conditions le déroulement des programmes les plus efficaces s'est forcément trouvé entravé et ce dans tous les secteurs du Ministère.

Le graphique ci-après nous indique le rythme de l'accroissement du personnel durant la dernière décennie, particulièrement dans sa première moitié. L'augmentation des attributions du Ministère, l'exécution des programmes de construction de la route Transcanadienne, ainsi que d'autres routes dont le Ministère a assumé la responsabilité; autant d'applications à l'accroissement antérieur. On constate, par contre, depuis l'année financière 1961-1962, un décroissement progressif.



On a poursuivi, au cours de l'année, le travail de réorganisation (celle-ci ayant été approuvée l'année précédente) du personnel du surintendant des édifices du Gouvernement. Ce travail consiste à classifier les emplois, à mettre nombre d'emplois au concours et à ouvrir d'autres concours pour les employés désireux d'obtenir de l'avancement. Le Ministère et la Commission du service civil, appliquant les méthodes de recrutement courantes, ont aussi procédé par voie de concours pour pourvoir de nombreux postes vacants dans tout le service, ou pour permettre à des employés d'obtenir de l'avancement. La Direction s'est fait représenter dans tous les bureaux d'appel formés par la Commission du service civil. De concert avec cette même Commission, la Direction a mené des enquêtes sur l'organisation et la classification dans un bon nombre de directions et dans des bureaux régionaux. Déjà une classification comprenant environ 300 emplois a été approuvée; le travail se poursuit, car il reste plus d'une centaine d'emplois à classifier. On a commencé à procéder à des enquêtes sur l'organisation (primaire aux études de classification) à la Direction de la gestion des immeubles. On s'attend que les bureaux régionaux de cette dernière Direction soient inclus dans l'enquête. Enfin, on espère que d'ici la fin du prochain exercice financier les enquêtes portant sur l'organisation et sur la classification dans les directions,

ment, Elle a de plus fourni les réponses à maintes questions verbales posées dans l'enceinte même des Communes.

La bibliothèque du Ministère, dont la responsabilité incombe à la Division, prête en moyenne 325 ouvrages par mois; la circulation des périodiques dans le même temps a atteint le chiffre de 2200 unités; elle comporte 17,500 livres et périodiques catalogués, la plupart de caractère technique et à la disposition du personnel.

CONTENTIEUX

Sur tout ce qui touche au domaine judiciaire le Contentieux conseille le Ministère pour lequel il remplit aussi des fonctions juridiques.

Durant le dernier exercice financier, le Contentieux a étudié 429 projets ratifiés (ceux non ratifiés par le ministre étant exclus) conformément à la loi (modifiée) sur la protection des eaux navigables, à celle sur les chemins de fer et sur la Loi sur la Commission nationale de l'énergie.

Dans le même temps, le Ministère a adressé 909 requêtes au Conseil du Trésor ainsi qu'au « Conseil » privé.

Le Contentieux a établi 779 contrats en bonne et due forme (chacun impliquant une dépense totale de plus de \$5,000), dont 428 pour des travaux de génie, 110 pour des réalisations de caractère architectural (nouvelles constructions), 110 pour l'entretien et les services. En ce moment, on examine 70 autres contrats dont la majorité ont trait à l'érection de petits bureaux de poste à commission.

Au Bureau d'enregistrement des documents juridiques (où ils ont été classés dans les dossiers) ont été déposés 296 titres de propriété relatifs à autant de terrains particuliers cédés au Ministère. Qui plus est, la Couronne a pris possession de 632 propriétés par le moyen de nouveaux baux ou de baux renouvelés.

On a loué à des particuliers ou à des sociétés 139 propriétés régies par la Couronne, tandis qu'environ 66 autres propriétés devenues excédentaires ont été confiées à la Corporation de disposition des biens de la Couronne.

A la suite d'une étude des travaux accomplis par la Division, étude faite par le Bureau d'analyse de l'administration, certaines fonctions jusqu'à présent remplies par les services du contentieux sont en passe d'être déléguées à d'autres sections du Ministère.

Du fait que c'est le Secrétariat du Ministère qui est chargé d'adjuger les contrats, on s'est avisé que leur rédaction en bonne et due forme, ainsi que tout ce qui s'y rattache, devrait relever du même service et on a pris des mesures en conséquence; le personnel affecté à ce travail est donc passé du Contentieux au Secrétariat.

La même étude a révélé que la plupart des baux préparés par les services du contentieux étaient de la forme la plus simple; ils sont rédigés généralement (tout comme les renouvellements) sur des formules imprimées par le Ministère. On a suggéré de faire exécuter ce travail par les directeurs des bureaux locaux, quitte à faire reviser les formules complétées par la Division du logement de la Direction de la gestion des immeubles. La suggestion ayant été agréée, et on a déchargé les Services du Contentieux de la préparation des documents en question.

DIRECTION DU PERSONNEL

Durant le dernier exercice financier, le Ministère comptait 9,208 employés. Ce chiffre représente une diminution de 194 personnes par rapport à l'effectif agréé durant l'exercice précédent. C'est que, conformément à la politique de restriction du recrutement, chaque fois qu'une vacance s'est produite on n'y a suppléé que dans les cas où il est apparu nettement à l'examen que l'emploi devait être maintenu. Une des causes de la diminution du personnel peut aussi être recherchée dans de plus nombreuses adjudications à forfait des travaux de nettoyage.

spécifications. La Direction a été représentée dans 14 commissions chargées d'étu-

dier des prises de possession.

La Direction a présenté 111 rapports d'enquêtes menées par son personnel

dans des immeubles de prestige ou des institutions, choisis en raison des risques

d'incendie plus grands qu'ils présentent, aux fins de déterminer l'efficacité de

leurs moyens et appareils de protection. L'Administration dirige, par ailleurs, l'ap-

plication d'un programme d'auto-inspection dont se prévalent plusieurs ministères.

Soumis par les autorités provinciales et municipales, 416 rapports nous ont été

d'une aide précieuse pour l'établissement de ces programmes d'inspection. Le

Comité conjoint de publicité (pour la protection contre l'incendie) des Chefs de

pompiers et prévôts a reçu, en sus de l'aide accoutumée, une donation de \$5,000.

Pour le bénéfice des architectes, des ingénieurs et de toute autre personne

responsable des plans et devis, de la construction et de l'entretien des propriétés

du Gouvernement, on a publié cinq autres séries de normes de protection tech-

niques, plus deux brochures de renseignements scientifiques du même ordre. Ces

publications intéressent maintenant le monde entier: à preuve, nous avons reçu

des demandes de renseignements, à leur sujet du Royaume-Uni, d'Israël et d'Aus-

tralie.

L'Office national du film a tourné, pour le compte de la Direction, avec

l'aide technique de nos spécialistes de la protection contre les incendies, un court

métrage (30 minutes de projection), en 16 mm et en couleur, qui s'intitule: *On le*

croyait à l'épreuve du feu. Cette bande, réalisée déjà en deux versions, anglaise

et française, a reçu chez nous un accueil si favorable, depuis son lancement en

1962, que depuis lors on l'a doublée en espagnol pour la présenter en Amérique

du Sud. On a aussi de plus en plus recours à notre filmothèque: 1350 demandes

l'an dernier. La Direction a également élaboré plus de 539 programmes d'entraîne-

ment sur la prévention des incendies.

Le 42e rapport annuel du Commissaire fédéral des incendies, qui contenait

une analyse statistique des pertes causées au cours d'une décennie, au Canada,

était bilingue. On en a distribué 3000 exemplaires aux organismes fédéraux, pro-

vinciaux et municipaux, aux autorités de gouvernements étrangers et à des biblio-

thèques de consultation.

Un membre de l'Administration a été désigné pour veiller aussi, à titre de

prévôt d'incendie, à l'exécution de l'Ordonnance sur la protection contre l'incendie

dans le Yukon et dans les Territoires du Nord-Ouest. Le prévôt, accompagné

d'un adjoint, a procédé à l'inspection de 255 immeubles dans 24 localités; il a

déterminé le matériel technique requis en matière de protection contre l'incendie

par 24 immeubles gouvernementaux ou privés servant aux communautés. Enfin,

on a institué deux cours d'entraînement pour proposés aux incendies, l'un à

Whitehorse, au Yukon, l'autre à Fort Smith, dans les Territoires du Nord-Ouest.

DIVISION DES SERVICES D'INFORMATION

Année bien remplie pour les Services d'information qui, entre autres tâches,

se sont chargés par l'entremise des divers bureaux régionaux, d'organiser et de

veiller au déroulement de quelque 40 à 50 cérémonies d'inauguration d'édifices

publics et d'autres ouvrages gouvernementaux.

Ils ont préparé 250 communiqués de presse pour informer le public de l'adju-

dication de contrats par le ministère des Travaux publics; d'autre part, ils ont eu

à satisfaire nombre de demandes de renseignements en provenance des organes

d'information et du public.

La Division a poursuivi la publication de la revue du personnel du Minis-

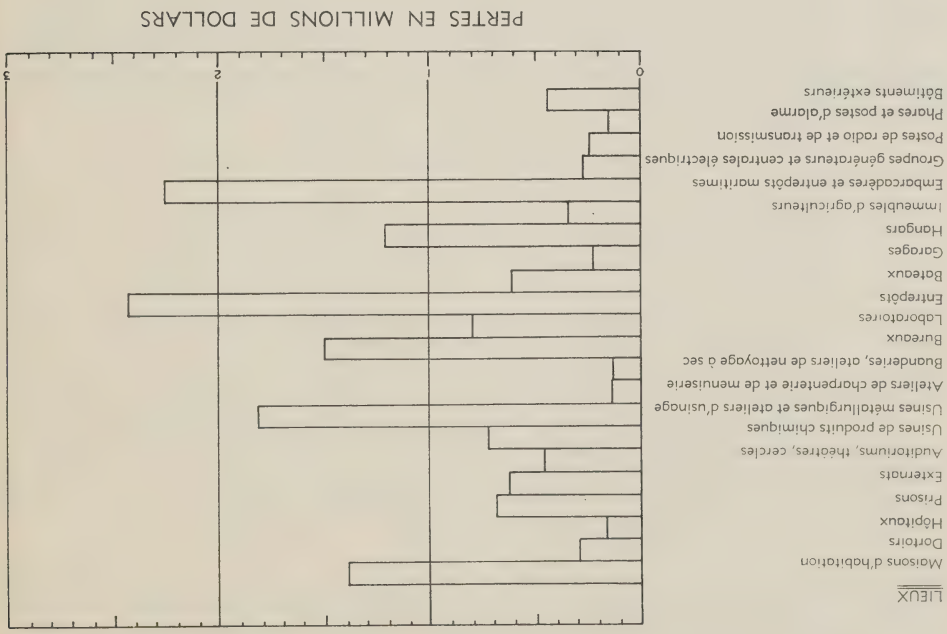
tère, « La Dépêche », ainsi que son service de coupures qui s'ajoute à 35 jour-

naux quotidiens et 30 revues mensuelles.

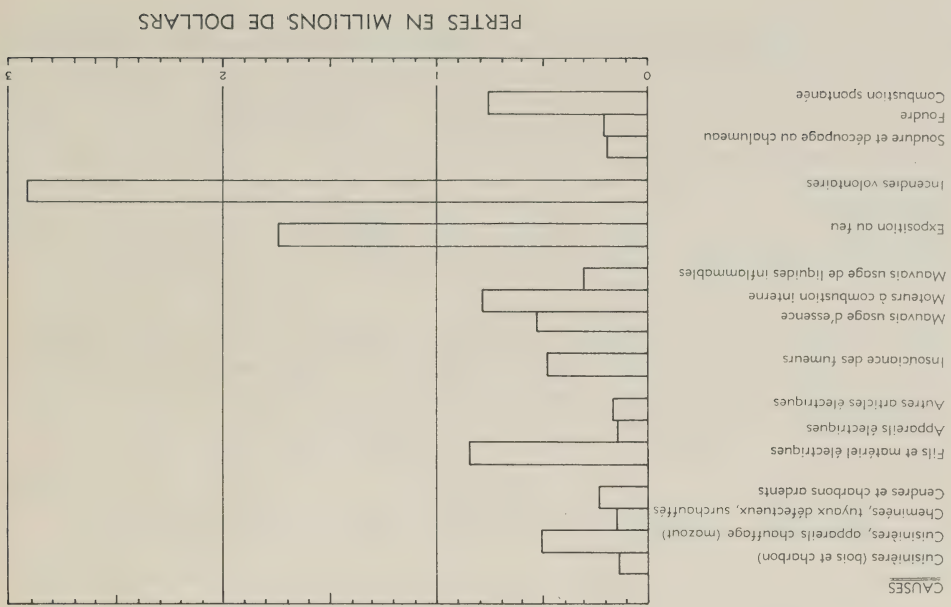
Notre section des documents parlementaires a fourni 250 réponses écrites à

des demandes inscrites à l'ordre du jour, lors de la première session du 26e Parle-

LIEUX DES INCENDIES
STATISTIQUES PORTANT SUR UNE PÉRIODE DE 10 ANS



CAUSES D'INCENDIE
STATISTIQUES PORTANT SUR UNE PÉRIODE DE 10 ANS



d'élaborer et d'imposer, de façon uniforme, à l'échelon ministériel, des lignes de conduite et des procédés adéquats dans l'administration des contrats adjugés par le Ministère.

La Division assure la liaison entre le Conseil du Trésor, le contrôleur du Trésor et autres ministères et organismes pour tout ce qui concerne les matières financières; elle représente le Ministère au sein du Comité consultatif du conseil du Trésor sur les contrats.

Au cours de l'année, la Division a été saisie de certaines affaires spéciales. Elle a étudié des moyens d'améliorer les systèmes de vérification financière et de comptabilité adoptés par le Ministère, en visant particulièrement à appliquer les recommandations et principes du Rapport sur l'administration financière préparé par la Commission royale d'enquête sur l'organisation du gouvernement.

On a entrepris de développer et d'améliorer les méthodes d'administration et de vérification des sommes à recevoir, on a aussi, en collaboration avec les services administratifs, élaboré un système d'établissement des prix de revient pour le bénéfice du surintendant des édifices du gouvernement, à Ottawa.

Le Ministère ayant assumé de nouvelles responsabilités à Churchill (Manitoba), et à Whitehorse (Yukon), la Division a été chargée de l'organisation financière de ces deux entreprises. Dans le Ministère même on a imposé depuis le 1er avril 1963 une nouvelle formule normative pour les contrats de construction.

DIRECTION DE LA PROTECTION CONTRE L'INCENDIE

Quoque dans tout le pays les pertes causées par l'incendie augmentent sans cesse d'année en année, en ce qui regarde les ministères mentionnés dans les Règlements de protection contre l'incendie (P.C. 1960-50/1499) ces pertes restent relativement du même ordre, bien que le gouvernement fédéral augmente substantiellement ses investissements en immeubles chaque année.

Durant l'année 1963, 524 incendies ont occasionné des pertes dont le total a atteint \$3,707,176 comparativement à un total de \$3,214,282 correspondant à 610 incendies, en 1962. L'incendie d'un entrepôt privé à Saint-Denis-sur-Richelieu (P.Q.), dans lequel on avait entreposé pour \$1,888,051 de beurre, a constitué la perte la plus considérable à enregistrer.

Pour sa part le ministre des Travaux publics a perdu, en 1963, \$472,832 à la suite de 93 incendies. La Direction a procédé à des enquêtes dans les 365 cas qui lui ont été signalés.

On trouvera ci-après des graphiques indiquant les locaux dans lesquels les incendies se déclarent le plus fréquemment, ainsi que les causes les plus fréquentes d'incendie.

Pour poursuivre l'application du programme de direction et d'instruction du personnel, on a donné à quelque 1,200 employés 30 conférences et démonstrations portant sur les mesures de prévention des incendies et sur l'usage d'extincteurs à main. Dans le même temps, plus de 50,000 fonctionnaires ont participé à plus de 1,000 exercices de sauvetage dans les immeubles du gouvernement fédéral à travers tout le Canada.

Au concours annuel de protection contre l'incendie, le nombre des candidats, de 207 qu'il était en 1962, s'est élevé à 228, ce qui atteste de l'intérêt grandissant au cours d'une cérémonie officielle qui a eu lieu dans une salle du Sénat, le secrétaire parlementaire du ministre des Travaux publics, M. G. Roy McWilliams, a présenté à l'honorable John R. Garland, ministre du Revenu national (depuis lors décédé), au nom du bureau de la Douane de Victoria la plus haute récompense, le trophée Howard Green.

Toujours dans le domaine de la protection contre l'incendie, on a prévu l'équipement technique de 230 nouvelles constructions et on a préparé à l'intention des soumissionnaires 41 modèles qui seront inclus dans les plans, devis et

La Direction a également été appelée à faire partie d'autres comités inter-ministériels comme celui sur les travaux d'hiver.

D'autre part, en collaboration avec des spécialistes et des préposés du ministère des Pêcheries, notre Direction a poursuivi sur place une enquête en vue de dresser la liste des besoins de l'industrie de la pêche non pas en mer, mais sur terre.

DIRECTION DES MESURES D'URGENCE

Le Comité fédéral du Cabinet pour les mesures d'urgence, lors de sa vingt-cinquième assemblée, tenue le vendredi 23 novembre 1962, a assigné au ministère des Travaux publics et, quand une collaboration s'imposera, à la Société centrale d'hypothèques et de logement, la responsabilité d'arrêter les mesures d'urgence à prendre pour remplir les fonctions suivantes, en cas de guerre:

1. Contrôler l'utilisation de tous les logements.
2. Prévoir des logements à utiliser en cas d'urgence ainsi que les services communautaires indispensables.
3. Conclure des accords avec les gouvernements fédéral et provinciaux en vue de la construction et de l'entretien des routes et ponts.
4. Contrôler l'emploi des ressources disponibles dans les domaines de la technique et de la construction.
5. Entretien, réparer, construire ou reconstruire ports et voies d'eau utiles à l'intérieur du pays.

Entre mars et juillet 1962, la Direction s'est attachée à mettre sur pied ces différents services d'urgence; il en a été discuté au cours de visites dans les dix provinces de même qu'avec les ministères et organismes concernés, tant et si bien qu'en novembre 1963, toutes les provinces étant d'accord, le Ministère se voyait investi des quatre premières fonctions énumérées, en sus de recevoir la mission de planifier en détail les mesures et directives qui s'imposent, les gouvernements provinciaux devant par ailleurs se charger de constituer des équipes régionales et de leur donner (si nécessaire avec l'aide et selon les directives du gouvernement d'Ottawa) un entraînement tel qu'elles soient aptes et prêtes à jouer un rôle efficace en cas d'urgence.

La cinquième et dernière des fonctions mentionnées plus haut ressortit prioritairement en ce moment entre ce Ministère, le ministère des Transports, le Conseil des ports nationaux et l'Administration de la voie maritime du Saint-Laurent. On a commencé à rédiger un manuel de planification des mesures d'urgence pour chacune des cinq fonctions énumérées. Concurrément, on discute en détail avec les autorités de chaque province du schéma de ces ouvrages et de l'assignation de fonctions aux ministères provinciaux appropriés.

En attendant la formation par les autorités provinciales d'organismes régionaux, on a, au cours de l'année 1963, déterminé grosso modo la composition d'un organisme central qui, relevant du gouvernement d'Ottawa, sera chargé d'appliquer les mesures d'urgence en cas de guerre; on a aussi arrêté un plan d'ensemble pour s'assurer que cet organisme soit toujours prêt à fonctionner comme il se doit, on a de plus établi une réglementation d'urgence de telle façon que, dans l'éventualité d'une guerre qui surviendrait d'ici la formation d'organismes régionaux, nous puissions assurer la suppléance et appliquer les mesures d'urgence qui s'imposeraient.

DIVISION DES SERVICES FINANCIERS

Entre autres attributions, la Division coordonne et analyse les prévisions budgétaires du Ministère; elle met au point et applique des procédés de vérification comptable et budgétaire des dépenses de tout le Ministère; enfin, elle a charge

sable est de l'ordre de 31 millions et demi de pieds carrés et qui se trouvent dans tout près de 3000 immuebles (propriétés de la Couronne ou loués) disséminés à travers tout le pays. On peut se faire une idée de l'importance de ces opérations si on considère que, durant l'année qui nous intéresse, près de 13,000 contrats d'une valeur globale de plus de 4 millions et demi de dollars ont été adjugés seulement pour l'entretien et les travaux de réparation.

On trouvera ci-après un compte rendu détaillé des tâches exécutées par les divers secteurs et divisions du Ministère au cours de la période 1963-1964 qui a été une excellente période.

SECRÉTARIAT ET SERVICES ADMINISTRATIFS

On a confié au Secrétaire du Ministère de hautes responsabilités dans deux sphères bien distinctes. Il a d'abord été chargé, conformément à la Loi sur les Travaux publics, de faire respecter les contrats et autres engagements de ce genre. Il s'acquitte de cette tâche en surveillant l'adjudication et l'exécution des contrats, depuis les demandes de soumissions jusqu'au contrôle des travaux, sans omettre la rétention et l'administration des dépôts de garantie faits par les entrepreneurs. D'autre part, en qualité de directeur des services administratifs, le Secrétaire assume la responsabilité de maints autres domaines du Ministère. Il est donc possible de circonscrire deux secteurs principaux dans lesquels s'exerce l'action du Secrétaire.

Faire publier dans les journaux les demandes de soumissions, après avoir rédigé les textes ad hoc; prévenir les hauts fonctionnaires du Ministère de la réception prochaine de ces soumissions; prêter la main pour la réception de celles-ci, pour la garde et l'administration des sommes fournies en garantie, pour enregistrer soumissions et garanties ainsi que les contrats adjugés; autant de tâches qui incombent au service des soumissions, lequel rend compte au chef adjoint des Services administratifs.

Le Secrétaire a aussi la responsabilité de maintes fonctions qui ont été créées pour assurer les services administratifs au sein du Ministère. À ce titre, il régit le dépôt central des dossiers, le service photographique, le service de vérification des formules, le service du matériel et des fournitures, le service de contrôle des véhicules. On a récemment institué un nouveau poste, celui de coordonnateur des services de transcription, de dactylographie et de reproduction. Le titulaire de ce poste dirige et coordonne pour le Ministère les services internes de transcription et de dactylographie.

DIRECTION DES ÉTUDES ÉCONOMIQUES

La fonction principale de la Direction des études économiques consiste à étudier les projets d'entreprises publiques qu'on lui soumet, puis à rendre des avis adéquats au point de vue économique, particulièrement quand il s'agit de dépenses en immobilisation. Sur chacun des 750 projets soumis durant l'année les experts ont émis un avis explicite.

La Direction a aussi été appelée à évaluer la croissance future de nombre de communautés aux points de vue économique et démographique, en particulier dans des agglomérations métropolitaines où il importe de prévoir les besoins futurs touchant le logement. Ce travail a complété celui des représentants de la Direction au sein du Comité consultatif du Conseil du Trésor sur les normes de logement. Nos spécialistes, à la demande des autorités concernées, se sont rendus sur place pour étudier les problèmes de certains ports. Le Comité interministériel sur les ports canadiens, dans lequel la Direction est représentée, a procédé à une enquête à l'issue de laquelle il a fait connaître ses recommandations sur des questions spécifiques.

L'exécution du programme de construction de routes dites « de développement », dans les Territoires du Nord-Ouest et dans le Yukon, qui a été amorcée en 1956, se poursuit pour le compte du ministère des Affaires du Nord et des Ressources nationales. Le Ministère, à cet égard, a complété à la fin du dernier exercice financier un relevé couvrant 1,500 milles; il a aussi mené à terme la construction de routes dont la longueur totale est de 700 milles. Dans le même temps, le Ministère dirige l'exécution du programme d'accès aux ressources, préparé par le ministère des Affaires du Nord et des Ressources nationales. Selon les termes d'un accord intervenu entre les dix provinces du pays et le gouvernement central, des routes approuvées dites d'« accès aux ressources », seront construites, moitié aux frais d'Ottawa, moitié aux frais des provinces et cela, pour chacune de ces dernières, jusqu'à concurrence de la somme de 7 millions et demi de dollars.

Dans le domaine des ports et cours d'eau, les principaux travaux de modernisation radicale du port de Saint-Jean (Terre-Neuve), ont été terminés durant l'année écoulée; toute l'entreprise, d'après le plan établi, devrait être achevée, au coût global de plus de 17 millions de dollars, durant l'année 1964. Des travaux d'amélioration fort importants effectués au cours des dernières années dans nombre de ports des Grands Lacs, ports qui fonctionnent maintenant à plein rendement, ont permis d'utiliser au maximum les possibilités de la voie maritime du Saint-Laurent.

Durant l'année, le ministère des Travaux publics, en collaboration avec d'autres ministères, certains organismes et avec l'industrie privée, s'est livré à l'étude et à la planification de mesures à prendre pour développer économiquement plusieurs régions et localités des Maritimes. Deux projets concernant d'autres régions présentent également un vif intérêt: le premier, déjà réalisé, est le nouveau type de digue à cavités qui s'est révélée fort efficace à Bate Comeau; le second est la structure qui sera érigée dans le port de Montréal, au coût approximatif de 13 millions de dollars, aux fins de commander le mouvement des glaces pour la protection du port et de l'emplacement de l'exposition universelle de 1967.

Au cours du même exercice financier, on a procédé à une reorganisation majeure de la Direction de la construction des édifices pour permettre au ministère des Travaux publics d'assurer les meilleurs services possibles aux autres ministères-clients en matière de construction. On trouvera à la page 40 des détails sur cette reorganisation ainsi que la nomenclature des cinq groupes de spécialistes qui ont été constitués.

Dans ce même domaine, il faut encore faire état de la contribution du Ministère au programme de construction hivernale établi par le Gouvernement. Dans le cadre de ce programme, 144 contrats ont été adjugés, ce chiffre doublant presque celui de l'année précédente. Entre autres travaux de construction, mentionnons ceux de 91 bureaux de poste à commission qui, tout en étant des immeubles standards, ont été conçus pour répondre aux besoins particuliers de chacune des localités qu'ils doivent desservir; la plupart ont été construits dans des régions où le nombre des chômeurs est élevé.

Dans le Nord, le Ministère a résolu de participer à l'exécution à Frobisher Bay, d'un programme de l'ordre de plusieurs millions qui comprend principalement la construction d'un hôpital de 28 lits, de systèmes d'épuration des eaux et d'égouts, d'entrepôts et de routes.

Dans la région d'Ottawa, plusieurs constructions importantes ont été mises en chantier: la nouvelle bibliothèque nationale, qui coûtera 10 millions de dollars, le nouveau bureau central du ministère de l'Agriculture, à la ferme expérimentale centrale, qui coûtera 9 millions. On a poursuivi le tracé du plan du nouveau musée national dont la construction doit commencer pendant l'année en cours. Ce sera là le premier élément d'un complexe d'envergure. En tant que propriétaire et intendait des immeubles gouvernementaux, le Ministère n'est pas resté inactif. Il a procuré aux ayants droit et a entretenu des locaux dont la superficie utili-

RAPPORT
SUR L'EXERCICE FINANCIER
SE TERMINANT LE 31 MARS 1964

Introduction

Les réalisations du ministère des Travaux publics ont été encore fort impressionnantes au cours de l'exercice financier 1963-1964. La dépense globale de \$184,789,304.01, qui représente une augmentation de \$4,710,360.42 par rapport à l'exercice précédent (alors qu'elle s'élevait à \$180,078,943.39), indique assez l'ampleur de l'activité du Ministère.

Tandis que ce dernier évaluait ses dépenses propres à \$154,842,706.04 soit une légère hausse comparativement au montant de \$149,693,703, l'année précédente, la valeur des travaux exécutés pour le compte des autres ministères a légèrement décliné, de \$30,385,240.30 à \$29,946,597.97. On trouvera aux pages 47 et 48 tous les détails utiles sur le revenu et les dépenses du Ministère.

Cependant qu'on procédait à l'exécution d'un certain nombre de projets qui, une fois matérialisés, constitueront des apports substantiels à l'économie du pays, sur les plans national et municipal, l'événement marquant de l'année a peut-être été la mise au point préalable du transfert aux Travaux publics, le 1er avril 1964, de deux établissements militaires de grande importance et d'un réseau routier, celui des Territoires du Nord-Ouest.

Depuis le jour mentionné, le Ministère assume la pleine responsabilité de la direction des établissements de Fort Churchill, au Manitoba, de Fort Peperell, à St-Jean (Terre-Neuve), tout comme celle de l'entretien de la route de l'Alaska, sur une distance de 1,220 milles, et du raccourci Haines dont la longueur, au Canada, atteint 112 milles. Grâce à l'étude approfondie faite antérieurement, le transfert de ces responsabilités s'est opéré avec un minimum de difficultés.

La construction, à travers les parcs nationaux, de tronçons de la route trans-canadienne d'une longueur totale de 140 milles (cette entreprise était légalement du ressort du gouvernement fédéral) est maintenant terminée, sauf qu'il reste à compléter l'ensemencement, à trouver le moyen de protéger les usagers contre les avalanches, à terminer d'autres travaux de protection. Tout cela sera entrepris au cours du prochain exercice financier. Restera à terminer le pavage sur 25 milles dans le parc Terra Nova, à Terre-Neuve; de ce côté, l'achèvement des travaux a été prévu à titre d'essai pour l'exercice 1966-1967. Il est intéressant de noter que, depuis l'ouverture du col Rogers dans le parc national Glacier, le nombre des touristes a considérablement augmenté dans cette région de l'Ouest, ces touristes s'y rendant par la route transcanadienne. Au parc national de Banff, par exemple, on a enregistré, en 1963, une augmentation de 19 p. 100 du nombre des visiteurs; au parc national Yoho, l'augmentation a été de 91 p. 100, chose phénoménale.

Durant cette dernière année on a assisté à un progrès notable dans l'étude des moyens de relier l'Île du Prince-Édouard au continent. On a déjà recueilli à ce sujet une grande quantité de renseignements précieux par le moyen de tests et d'études très poussées; on croit par ailleurs que la reproduction à l'échelle du détroit de Northumberland permettra d'obtenir d'autres renseignements utiles touchant le niveau de l'eau, les courants, l'érosion, l'ensablement, le mouvement des glaces, etc. Tous ces renseignements permettront de construire le meilleur passage possible.

Winnipeg	.....	H. C. Tod
Edmonton	.....	A. E. Cook
Vancouver	.....	R. J. Bickford
<i>Direction de la gestion des immeubles</i>		
Directeur	.....	D. A. Freeze
Directeur adjoint	.....	E. C. Martel
Chef de la division de l'administration des terrains	.....	D. H. Livingston
Chef de la division du logement	.....	J.-H. De Puyjalon
Chef de la division des opérations	.....	E. W. Labelle
<i>Gérants régionaux</i>		
Saint-Jean (Terre-Neuve)	.....	J. W. Pye
Halifax	.....	L. B. Campbell
Saint-Jean (Nouveau-Brunswick)	.....	R. S. Lawrence
Québec	.....	E. Raymond
Montréal	.....	J. K. Aubut
Ottawa	.....	B. Payette
Toronto	.....	R. S. Fonberg
London	.....	R. Isted
Winnipeg	.....	A. Yule
Saskatoon	.....	K. C. Moffatt
Edmonton	.....	J. T. Gillson
Vancouver	.....	G. E. McPhee
London, Angleterre	.....	W. T. Rutherford

Ottawa	.....	P. W. Walters
Toronto	.....	R. P. Henderson
London	.....	G. N. Scroggie
Fort William	.....	R. Scawieght
Winnipeg	.....	C. L. Davies
Edmonton	.....	J. P. Livingston
Vancouver	.....	A. W. Walkey

Direction du génie (aménagement)

Ingenieur en chef	.....	G. T. Clarke
Chef de la division du génie et de la construction	.....	W. R. Binks
Chef intermédiaire de la division des ouvrages d'art	.....	G. H. Fournes
Chef de la division de la coordination technique et de l'administration	.....	H. G. Millar
Directeur du contrôle des programmes et de l'administration	.....	W. M. Oakes
Chef des laboratoires d'essais	.....	N. E. Laycraft

Ingenieurs régionaux

Terre-Neuve	.....	A. L. Perley
Nouvelle-Ecosse	.....	H. L. Peters
Nouveau-Brunswick et Ile du Prince-Edouard	.....	H. A. Nason
Québec	.....	J.-C. Beauchamp
Ontario	.....	W. Koropatnick
Manitoba et Saskatchewan	.....	J. A. Flatt
Alberta et Territoires du Nord-Ouest	.....	J. E. Savage
Banff, Alberta (parc national de l'Ouest)	.....	A. H. MacKinnon
Colombie-Britannique	.....	B. G. Harvey
Whitehorse, Territoire du Yukon	.....	J. E. Kellett

Direction de la construction des édifices

Architecte en chef	.....	J. A. Langford
Adjoint à l'architecte en chef	.....	A. K. Mills
Adjoint à l'architecte en chef	.....	W. A. Gibson
Directeur adjoint	.....	W. D. Egan
Architectes coordonnateurs	.....	E. G. Langley
Immeubles à bureaux	.....
Pénitenciers	.....
Construction dans le Nord canadien	.....	G. Pritchard
Laboratoires	.....	W. N. Thomas
Projets spéciaux	.....	W. H. Robinson

Architectes régionaux

Saint-Jean (Terre-Neuve)	.....	L. W. Hopkins
Halifax	.....	P. W. Vaughan
Saint-Jean (Nouveau-Brunswick)	.....	C. H. Cullum
Montréal et Québec	.....	P.-R. Martineau
Ottawa	.....	R. F. West
Toronto	.....	I. M. Saunders

MINISTÈRE DES TRAVAUX PUBLICS

RÉPERTOIRE DU PERSONNEL

(au 31 mars 1964)

Ministre	L'hon. Jean-Paul Deschatelets
Secrétaire parlementaire	G. R. McWilliam, M.P.
Adjoint exécutif au ministre	G. Légaré
Sous-ministre	Lucien Lalonde
Conseiller spécial du sous-ministre	E. A. Gardner
Adjoint exécutif au sous-ministre	George T. Jackson
Sous-ministre adjoint	G. B. Williams
Sous-ministre adjoint (technique)	
Directeur des services administratifs et secrétaire	Robert Fortier
Directeur des études économiques	C. J. Daly
Conseiller financier	L. P. Boyle
Chef des achats et approvisionnements	H. G. Hunt
Chef des services d'information	J. F. Maxwell
Chef du personnel	Alban Garon
Chef du contenu	R. E. Rodgers
Services de gestion	R. A. Switzer
Commissaire fédéral des incendies	

Directeurs de région

Montréal	R.-G. Grenier (détaché aux quatriers généraux)
Edmonton	R. G. McFarlane

Direction du génie (ports et rivières)

Ingénieur en chef	G. Millar
Chef de la division des excavations marines	J. F. Godsell
Chef de la division de l'entretien et de l'exploitation	C. K. Hurst
Chef de la division de la planification et de la construction	J. E. Bright

Ingénieurs régionaux

Saint-Jean (Terre-Neuve)	G. E. Knight
Charlottetown	T. B. McLennan
Halifax	J. A. Brown
Saint-Jean (Nouveau-Brunswick)	E. D. Manchul
Rimouski	J. Vachon
Québec	G. LaJoie
Montréal	J.-P. Chevalier

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A l'honorable Jean-Paul Deschatelets, ministre des Travaux publics, Ottawa.

MONSIEUR:

J'ai l'honneur de vous soumettre le rapport annuel du ministère des Travaux publics pour l'exercice financier terminé le 31 mars 1964.

Votre obéissant serviteur,

LUCIEN LALONDE,

Sous-ministre.

Le 29 janvier 1965.

*A Son Excellence le major-général Georges Vanier, D.S.O., M.C., C.D., Gouver-
neur général et Commandant en chef du Canada.*

EXCELLENCE:

J'ai l'honneur de présenter à Votre Excellence le rapport annuel du ministère
des Travaux publics pour l'exercice financier terminé le 31 mars 1964.

Respectueusement soumis,

JEAN-PAUL DESCHATELETS,

Ministre des Travaux publics.

Le 29 janvier 1965.

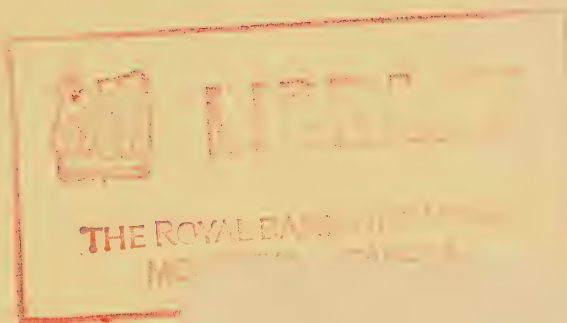
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ROGER DUHAMEL, M.S.R.C.
Imprimeur de la Reine et Contrôleur de la Papeterie
Ottawa, Canada
1965

RAPPORT du
MINISTÈRE des
TRAVAUX PUBLICS

Exercice financier
terminé le
31 MARS
1964





Ministère des Travaux publics



RAPPORT ANNUEL

pour l'année
financière terminée le 31 mars
1964

CAI
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- A56



department of public works
annual report

fiscal year ending march 31, 1965



department of public works
annual report

fiscal year ending march 31, 1965

ROGER DUHAMEL, F.R.S.C.
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Ottawa, Canada
1966



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*To His Excellency Major-General Georges Vanier, D.S.O., M.C., C.D.,
Governor-General and Commander-in-Chief of Canada.*

MAY IT PLEASE YOUR EXCELLENCY.

The undersigned has the honour to lay before Your Excellency the
Annual Report of the Department of Public Works for the fiscal year
ended March 31, 1965

Respectfully submitted

LUCIEN CARDIN,
Minister of Public Works

The Honourable Lucien Cardin, Minister of Public Works, Ottawa.

SIR

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1965.

Your obedient servant,

LUCIEN LALONDE,

Deputy Minister

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

(As of March 31, 1965)

Minister	Hon. Lucien Cardin
Parliamentary Secretary	G. R. McWilliam, M.P.
Executive Assistant to the Minister	R. G. Geoffrion
Special Assistant to the Minister	H. A. Langlois
Deputy Minister	Lucien Lalonde
Executive Assistant to the Deputy Minister	J. C. Richard
Assistant Deputy Minister	George T. Jackson
Assistant Deputy Minister (Technical)	G. B. Williams
Chief of Administrative Services and Secretary	Robert Fortier
Director, Economic Studies Branch	C. J. Daly
Financial Adviser	L. P. Boyle
Chief, Purchasing and Stores Branch	H. G. Hunt
Director, Information Services	W. H. Dumsday
Chief, Personnel Branch	J. F. Maxwell
Chief, Legal Services	Alban Garon
Management Services	R. E. Rodgers
Dominion Fire Commissioner	R. A. Switzer
Chief, Emergency Planning	E. W. Laver

Regional Directors

Edmonton	R. G. McFarlane
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Executive Head and Engineer

<i>in Charge of the Yukon</i>	W. Koropatnick
-------------------------------------	----------------

Harbours and Rivers Engineering Branch

Chief Engineer	G. Millar
Chief, Marine Excavation Division	J. F. Godsell
Chief, Maintenance and Operations Division	C. K. Hurst
Chief, Planning and Construction Division	J. E. Bright

District Engineers

St. John's	G. E. Knight
Charlottetown	T. B. McLennan
Halifax	J. A. Brown
Saint John	E. D. Manchul
Rimouski	D. F. Caveen
Quebec	G. Lajoie
Montreal	J. P. Chevalier

Ottawa	P. W. Walters
Toronto	R. P. Henderson
London	G. N. Scroggie
Fort William	R. Seawright
Winnipeg	C. L. Davies
Edmonton	J. P. Livingston
Vancouver	A. W. Walkey

Development Engineering Branch

Chief Engineer	G. T. Clarke
Chief, Engineering and Construction Division	W. R. Binks
Chief, Structures Division	G. H. Foures
Chief, Technical Co-ordination and Administration Division	H. M. Millar
Supervisor Program Control and Administration	G. Langlois
Chief, Testing Laboratories	N. E. Laycraft

District Engineers

Newfoundland	A. L. Perley
Maritimes	H. A. Nason
Quebec	J. C. Beauchamp
Ontario	H. F. Peters
Manitoba and Saskatchewan	J. A. Flatt
Alberta and Northwest Territories	R. Smillie (Acting)
Banff, Alberta (Western National Parks) ..	N. A. Huculak (Acting)
British Columbia	B. G. Harvey
Whitehorse, Yukon Territories	J. E. Kellett

Building Construction Branch

Chief Architect	J. A. Langford
Assistant Chief Architect	A. K. Mills
Assistant Chief Architect	W. A. Gibson
Chief, Executive Administration	W. D. Egan
Co-ordinating Architects —	
Office Buildings	E. G. Langley
Penitentiaries	D. H. Miller
Northern Construction	D. L. Turnbull
Laboratories	W. N. Thomas
Special Projects	W. H. Robinson

District Architects

St. John's	L. W. Hopkins
Halifax	P. W. Vaughan
Saint John	C. H. Cullum
Montreal and Quebec	P. R. Martineau
Ottawa	R. F. West
Toronto	I. M. Saunders
Winnipeg	H. C. Tod
Edmonton	A. E. Cook
Vancouver	R. J. Bickford

Property and Building Management

Director	D. A. Freeze
Assistant Director	E. C. Martel
Directorate Planning Officer	A. S. Archard
Chief, Lands Administration Division	D. H. Livingston
Chief, Accommodation Division	H. J. DePuyjalon
Chief, Operations Division	E. W. Labelle
Chief, General Services Division	P. A. Butterworth
<i>Superintendent, DPW, Fort Churchill</i>	R. B. Angus

District Managers

St. John's	J. W. Pye
Halifax	L. B. Campbell
Saint John	R. S. Lawrence
Quebec	R. L. Charpentier
Montreal	G. K. Aubut
Ottawa (National Capital)	W. M. Dicks (Superintendent of Government Buildings)
Ottawa (District)	B. Payette
Toronto	R. S. Fonberg
London, Ontario	R. Isted
Winnipeg	A. Yule
Saskatoon	K. C. Moffatt
Edmonton	J. T. Gibson
Vancouver	L. B. Gillespie
Whitehorse	R. E. Fairey

Overseas Manager

London, England	W. T. Rutherford
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REPORT
of the
DEPARTMENT OF PUBLIC WORKS
for the
FISCAL YEAR ENDED MARCH 31, 1965

General Introduction

The Department of Public Works advanced rapidly in all sectors of its far-ranging activities during the fiscal year.

Acceleration of its normal functions as well as of the special projects undertaken on behalf of other departments resulted in expenditures almost \$75,000,000 higher than in the previous year.

Total spending was \$259,786,897.52 compared with \$184,789,304.01 in 1963-64. Of the total, \$35,276,545.52 represented special projects under encumbrances from other departments. The corresponding amount a year earlier was \$29,946,597.97. About two-thirds of the funds supplied by other departments were for construction of special-purpose buildings other than the general office accommodation for which the Public Works Department supplies funds.

Of the \$224,510,352 for which the department was responsible directly, \$64,112,591 was for capital construction, \$76,085,112 for contributions to the provinces under the Trans-Canada Highway agreement and \$84,312,649 for operational expenses.

Half of the capital construction was in building accommodation. The remainder was for new marine structures, roads and bridges. The provinces of Quebec and Newfoundland were the main benefactors under the Trans-Canada Highway cost-sharing arrangement, Quebec receiving \$32,048,994 and Newfoundland \$22,766,219. Accommodation services accounted for \$55,643,081 of the amount spent on operations.

Responsibility for more than 4,000 harbors, 3,000 premises and thousands of miles of highway made the department's presence felt in all parts of the country. Projects varied in magnitude from any of the 72,000 minor work orders issued during the year by the Superintendent of Government Buildings in Ottawa, to the planning of the Northumberland Strait crossing between New Brunswick and Prince Edward Island which may cost \$150,000,000.

Staff increased by almost 1,200 to 10,396. The sizable boost in personnel was a direct reflection of new duties assigned to the department. The new responsibilities included operation and maintenance of the Northwest Highway system and management of the former military establishments at Fort Churchill, Man. and Fort Pepperrell, Nfld.

The Harbors and Rivers Engineering Branch put the finishing touches on its \$17,000,000 modernization of the St. John's, Nfld., harbor and was progressing on other projects of equal importance. Most noteworthy was the planning under way for the harbor development at Belledune Point, N.B. The department will share costs with the National Harbors Board and with industrial interests for a \$15,000,000 harbor that will serve a new industrial complex worth \$180,000,000.

Work also progressed on the \$13,000,000 ice-control structure in the St. Lawrence River a few miles upstream from the site of Expo '67. At the request of the Department of Transport, the branch completed planning for ferry terminals at Sydney, Port aux Basques and Argientia.

Apart from responsibility for federal participation under the Trans-Canada agreement and for planning of the Northumberland Crossing, the Development Engineering Branch was involved in several other special undertakings. It provided engineering supervision for \$14,000,000 worth of work under the Roads to Resources program for the Department of Northern Affairs and National Resources. Similar engineering services were provided for \$80,000,000 worth of projects for the Atlantic Development Board.

The Building Construction Branch awarded contracts worth more than \$60,000,000. There were 395 projects undertaken during the year. At March 31, work continued on 346 of the new projects and on 126 projects undertaken previously. Although 290 of the contracts were for construction of federal buildings, these represented only about one quarter of total contract values. The largest single area of building expenditure was for penitentiaries. Seventeen contracts represented 40.97 per cent of the value of building contracts. The penitentiaries work is part of a program calling for expenditures totalling \$70,000,000 by 1967.

The Minister of Public Works Design Awards were presented for the first time to consulting firms which designed all types of buildings for the department between 1961 and 1964. Another innovation designed to promote excellence in the appearance of public buildings was the government decision to allow a percentage of the value of new structures for inclusion of art work in their design.

Of all the undertakings during the year, the one with possibly the most far-reaching consequences was the decision to conduct a management survey of the entire departmental operation at headquarters and in the field offices. The three-phase survey is expected to propose methods of streamlining the organization in keeping with its growing responsibility as the main designer, builder and custodian of public property.

SECRETARY AND ADMINISTRATIVE SERVICES

The Secretary of the department has dual responsibility for contract procedures and for a variety of administrative services to other branches. During the year there was an increase in both areas.

The branch exercises control over the contract procedures from the call for tenders by advertisement to the full execution of the contract documents. Although general authority has been delegated to the department's district offices to deal with tendering for contracts up to \$25,000 each, the processing of these contracts remains with the branch.

During the fiscal year, the Secretary presided at the public opening of 1,904 tenders for 422 projects each valued in excess of \$25,000. During the same period, processing of contracts increased by about 67 per cent to 1,307 from 779 in the previous year. Of the contracts there were 381 for architectural projects, 513 for engineering projects, 263 for property and building management projects and another 150 unclassified contracts which were prepared and forwarded to contractors but not yet executed by the department. A committee made up from all branches was established to study tendering practices and requirements. Its report was completed and it is considered that implementation of the recommendations in whole or in part would expedite the completion of contract documents.

The branch also was made responsible for establishment of a contract registry for the safekeeping of departmental contract documents and agreements.

Other developments during the year were the transfer to the Secretary of the control of submissions to the Privy Council and Treasury Board, responsibility for preparation of answers put on the Order Paper of the House of Commons, and productions of papers referred to in motions adopted by the House of Commons.

ECONOMIC STUDIES

In line with its main function, the Economic Studies Branch continued during the year to assess and to make specific recommendations on proposed public projects. More than 500 such references were received and recommendations made on each.

The branch also assessed prospects for population and economic growth in about 80 communities, including some metropolitan areas where consideration was being given to new or additional accommodation. The purpose was to allow planning in the light of future needs of individual communities. This work complements participation by the branch in the Treasury Board Advisory Committee on Accommodation.

The branch also is represented on the newly-formed Treasury Board Advisory Committee on Marine Construction set up to review marine projects involving Federal Government expenditures. It also is represented on interdepartmental committees such as that on winter works.

Members of the branch made on-site surveys of a number of individual harbors and areas with officers of the Department of Fisheries in cases where harbor requirements were being reviewed in light of their support to the fishing industry. A number of ports were visited by the Public Works-Transport Interdepartmental Group on Canadian Ports, in which the branch is represented. Recommendations on specific harbor problems resulted from its investigation.

EMERGENCY PLANNING

A pilot survey was carried out of all major buildings in Alberta to determine the amount and nature of fallout shelter space that would be available in the event of nuclear attack. The survey, conducted by the Development Engineering Branch, was designed to develop the methods and standards that would apply in a similar survey extended to buildings in all parts of the country. Approval for the extended national survey was received by the Federal Emergency Measures Organization in February, 1965, and the Public Works Department's Emergency Planning Branch was authorized to carry out the assignment over a three-year period. Provision was made for the branch to expand its staff substantially to meet the commitment at headquarters and in the provinces.

The branch also is responsible for detailed planning of the department's wartime functions and for general co-ordination of peace-time tasks such as provision of emergency government headquarters facilities.

Having earlier obtained the general agreement of provincial authorities to accept certain regional responsibilities in connection with departmental wartime tasks, a second round of visits was made to most provinces to work out details of the following delegated functions: control of the use of all accommodation; provision of emergency housing and associated utility services; arrangements for maintenance and construction of roads and bridges; and control of engineering and construction resources. Pending development of regional organizations within the provincial departments, Works Department executive heads in the provinces have prepared interim regional readiness plans assigning district staffs of the Department of Public Works and Central Mortgage and Housing Corporation to these functions.

Concurrent with the provincial meetings, work continued on the preparation of draft material for an emergency planning manual on each of the assigned provincial functions. These were circulated to the provinces for comment and several approved chapters were made ready to issue in final form.

FINANCIAL SERVICES

During the year the Financial Services Division considered ways in which financial control and accounting systems within the department might be improved,

particularly with reference to the concepts and recommendations of the Royal Commission on Government Organization. In this context, preliminary steps were taken toward the introduction of a new financial reporting system designed to assist in the management process.

Generally, the division's duties included the co-ordination and analysis of departmental estimates, the development and implementation of accounting and budgetary control procedures and development and implementation of procedures relating to contract administration. The division provided liaison on financial matters with the Treasury Board, the Comptroller of the Treasury and other government departments and agencies.

Following is the general summary of funds expended by the department. Details appear on pages 46 and 47.

SUMMARY

	OPERATIONS	CAPITAL	TRANS-CANADA HIGHWAY CONTRIBUTIONS	TOTAL
Accommodation Services	55,643,081	31,716,849		87,359,930
Harbors and Rivers Eng. Services	6,947,552	23,255,244		30,202,796
Roads and Bridges Eng. Services	8,570,664	3,020,624	76,085,112	87,676,400
Miscellaneous	13,151,352	6,119,874		19,271,226
TOTAL	84,312,649	64,112,591	76,085,112	224,510,352

FIRE PREVENTION

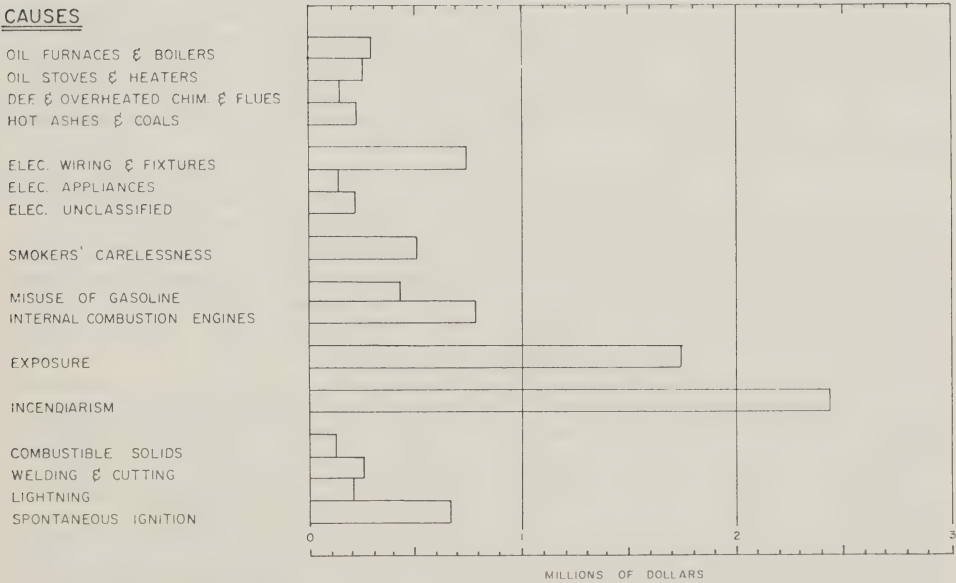
The Fire Prevention Branch is responsible generally for civil departments and agencies of the Federal Government. Its functions include specifying requirements and pertinent specifications for new construction, carrying out fire-protection engineering surveys, investigation of fires, training of employees in fire prevention, and preparation of Fire Protection Engineering Standards and Technical Information Bulletins.

Fire losses during 1964 for agencies within the responsibility of the branch totalled \$929,355 in 452 fires. This compared with losses totalling \$3,586,379 from 543 fires in the previous year. Since the property value involved is in excess of \$4,000,000,000, the 1964 figures represent a loss ratio of slightly more than two cents per \$100. This compares with an average dollar-loss ratio of 29 cents per \$100 for all insured property in Canada.

Principal locations and causes of fires for the most recent 10-year period are shown in the following charts:

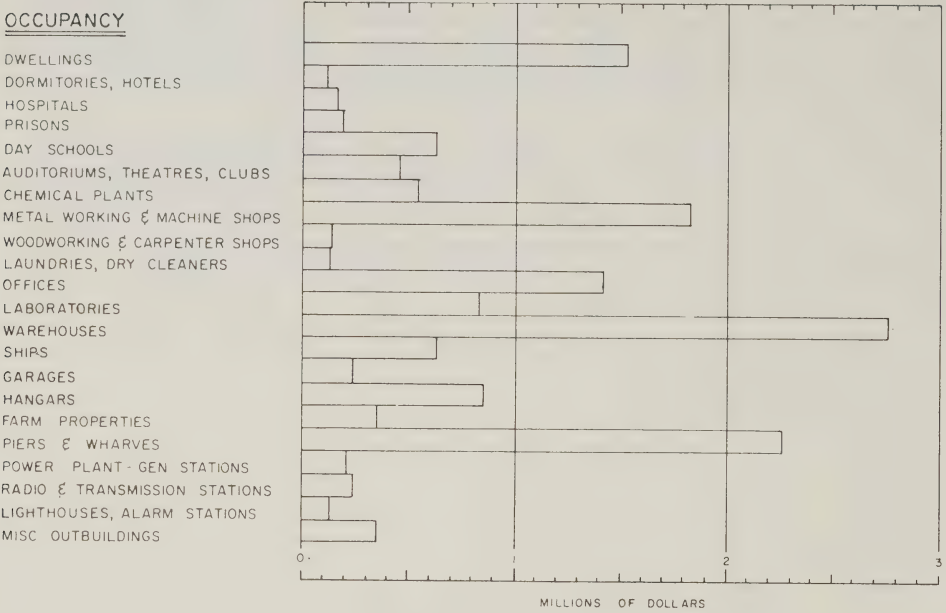
FIG. NO. 5
CAUSES OF FIRES WHERE THE TOTAL FIRE LOSSES ARE
\$ 100,000 OR MORE DURING 10 YEAR PERIOD 1955-1964
(EXCLUDING DND)

CAUSES



OCCUPANCIES * HAVING FIRE LOSSES OF
\$ 100,000 OR MORE DURING 10 YEAR PERIOD 1955-1964
(EXCLUDING DND)

OCCUPANCY



* OCCUPANCY REFERS TO SPECIFIC OCCUPANCY WHERE FIRE OCCURRED RATHER THAN GENERAL OCCUPANCY OF PROPERTY - ie A MACHINE SHOP IN A PENITENTIARY WOULD BE CLASSED AS A MACHINE SHOP, NOT A PRISON

During the year, the branch reviewed 349 plans of new construction projects to determine the fire-protection requirements and prepared 19 specifications of fire-protection installations. It carried out 132 engineering surveys of selected important properties with particular emphasis on institutional buildings and structures of high value. The branch also processed 423 inspection reports submitted by provincial and municipal fire authorities.

Publication was made of one Fire Protection Engineering Standard and of one Technical Information Bulletin, bringing the total to 15 Standards and 24 Bulletins. Standards are prepared for use by architects and engineers responsible for design and construction of Government buildings and structures. Bulletins are informative in nature, covering particular aspects of fire protection not published elsewhere. Because the Standards are original in their scope and requirements, they are receiving international recognition and are forming the basis of requirements in many building codes including the National Building Code of Canada.

A program of employee instruction and training was continued. Twenty lectures and demonstrations in fire-prevention procedures and the use of fire equipment involved 500 employees. There were 568 evacuation drills involving more than 100,000 employees, about half the civil service total.

Five new film titles were added to the film library and 1,349 bookings were arranged.

The branch organized the Government division of the National Fire Prevention Association (International) Annual contest. There were 218 entries, including 107 from the Department of Public Works. Two entries won International awards — the Dominion Public Building, Toronto, and Lancaster Hospital, New Brunswick. Each placed first in its class.

There were 3,000 copies of the 43rd Annual Report of Fire Losses in Canada distributed to federal, provincial and municipal agencies, foreign governments and to reference libraries.

A member of the Fire Prevention Branch serves as fire marshal for the Yukon and Northwest Territories, administering the fire prevention ordinance for each. He and his deputy surveyed 50 communities, approved 82 plans of new projects, including those of the federal government in the territories, and conducted 12 fire schools for fire department officers and men.

INFORMATION SERVICES

During the year Information Services was reorganized. Efforts were directed to making the department's operations better known and extensive use was made of all media.

Co-operation of the district offices enabled the division to foster excellent relations with the public at the local level. Departmental representatives in all regions of the country participated in the successful round of ceremonial openings of public buildings and structures and other ceremonies such as the laying of cornerstones and sod-turnings. These various functions averaged one a week over the 12 months.

About 300 press releases covering contract awards, feature stories and appointments were issued. Many were supported by perspectives and photographs. Pictures also were issued covering many facets of departmental activity.

Television and radio received special attention. Visits to headquarters and to project sites were arranged. Interviews with departmental officials were facilitated and the division performed its general responsibility of handling the many requests and queries from the press media and the public at large.

Spring, summer, fall and winter issues of the staff magazine, *The Dispatch*, were published. It was decided to change the cover format. An effort was made to give the regions and districts more space to avoid over-emphasis of headquarters activities.

A press clipping service was provided for officials. Material was obtained and distributed on a continuing basis from 35 English and French daily newspapers and 30 monthly magazines.

Due to the unusual length of the second session of the 26th Parliament, the division's Parliamentary Returns Section provided written answers to a record number of questions which appeared on the Order Paper of the House of Commons. Of a total of 3,078 questions asked of Ministers of the Crown, 416, or almost 15 per cent involved the Department of Public Works. In addition numerous orders for the production of papers were filled and answers supplied to oral questions asked from the floor of the House of Commons.

The Departmental Library, a responsibility of the division, averaged 310 loans a month and the individual circulation of periodicals amounted to 2,150 monthly. The library contains 17,800 catalogued books and periodicals mainly of a technical nature, which are available to the staff of the department.

LEGAL SERVICES

Increased legal requirements connected with the performance of departmental functions led during the year to an increase in the staff to five lawyers from three. Generally the division interprets statutes and regulations, prepares and interprets legal documents, advises regarding claims under the Crown Liability Act, attends to acquisition of lands for public works by purchase or expropriation, and advises in connection with applications under the Navigable Waters Protection Act, the Railway Act, and the National Energy Board Act.

During the year the division received and filed 412 title documents in connection with the acquisition of 404 parcels of land. It dealt with approximately 225 claims in tort by or against the crown and processed 394 approvals and declarations

under the Navigable Waters Protection Act, the Railway Act and the National Energy Board Act.

Functions involving preparation of standard-form construction contracts, standard-form leases and renewals, and submissions to Treasury Board or Governor in Council concerning lands were transferred to other divisions within the department.

PERSONNEL BRANCH

The department's establishment increased by 1,188 positions to 10,396 in the 12 months ended March 31. Additional duties accounted for the increase. These were: responsibility for operation and maintenance of the Northwest Highway system; and management of the former military establishments at Fort Churchill, Man., and Fort Pepperrell, Nfld.

Departmental headquarters devoted considerable time to the smooth initiation of the Fort Churchill and Northwest Highway system units. Reasons for special care in this regard were the magnitude of the operations involved, the factor of isolation, and the fact these operations were different from traditional functions of the department.

Other areas of departmental activity continued to be serviced with the branch collaborating with the Civil Service Commission in classification and recruiting. The following tabulation indicates the magnitude of the personnel servicing function:

Appointments	1,214
Separations	1,239
Competitions advertised	282
Requisitions to CSC headquarters	954
Staff pay certificates prepared	9,266
Long service certificates issued	252
Medical certificates processed	4,440
Workmen's compensation claims	1,152

During the year the branch provided representation at all formal appeals heard by the Civil Service Commission. Following are the results:

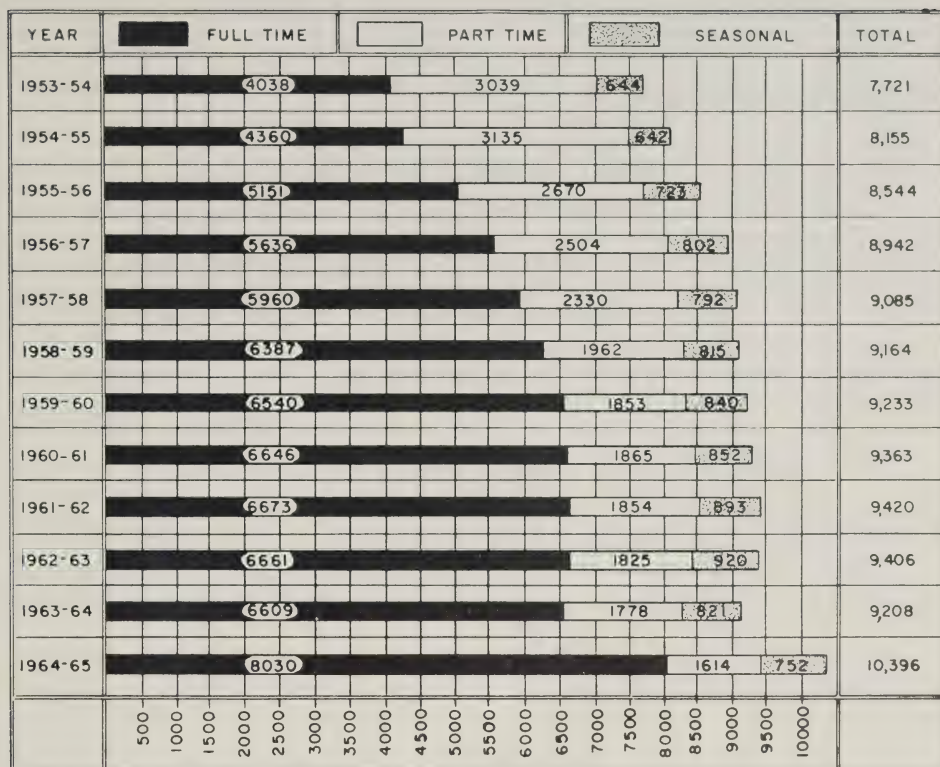
NATURE	NUMBER	ALLOWED	DISMISSED	WITHDRAWN OR OTHER DISPOSITION
Competition Results	32	1	27	4
Denial of Salary Increase	3	—	1	2
Suspensions	4	—	3	1
Demotions	—	—	—	—
Dismissals	4	—	3	1

Organizational surveys and classification studies were completed in Lands and Operations Divisions of the Property and Building Management Branch and in the district offices of the same branch. In collaboration with the Civil Service Commission, surveys also were conducted in the headquarters of the Harbors and Rivers Branch, the Testing Laboratories, the Building Construction Branch and the Administrative Services Section of the Ottawa District Office.

Classification of more than 500 positions was reviewed and approved in collaboration with the Civil Service Commission. Action is continuing with respect to 75 others.

The branch participated in analysis of the report of the Preparatory Committee on Collective Bargaining and in the classification revision program inaugurated in accordance with a recommendation in the report. It is anticipated this program will demand increasing attention in the year ahead.

Although a shortage of qualified staff seriously limited the training and development program, a number of supervisory and skills training programs were continued.



The branch directed and co-ordinated the participation of departmental employees in development and training courses conducted by the Civil Service Commission in public administration, management improvement, office management, cost accounting, conversational French and in specialized professional and technical courses sponsored by other governmental agencies and private organizations on various phases of building construction and property management.

Progress was made towards development of a comprehensive program of accident prevention in the department. Informative literature was distributed, safety committees were established in Toronto and Ottawa districts and growing interest was manifested in other locations.

The secretariat provided by the Personnel Branch for the suggestion award program and for the various officially-sponsored campaigns reported successful results from the Canada Savings Bond Campaign and the Ottawa-Hull United Appeal drive. The department was the first to attain and exceed its United Appeal quota of \$18,060. The figure was the highest ever accepted by the department and employees responded by pledging \$22,035 and exceeding the quota by 22 per cent. Sales of Canada Savings Bonds reached a new high of \$922,000, 16 per cent over the accepted quota of \$795,000.

The high interest and continued support given by employees to departmental and public interest programs is indicated by the fact that 18 per cent of all suggestions received through the Suggestion Award Program were adopted. They are expected to result in first-year savings of \$63,350. The 35 successful suggestions brought the idea men an average of \$83 each. This is the highest average ever attained in the department.

Despite intensive recruiting efforts, there was a continuing shortage of qualified professional and technical staff during the year. Towards the end of the year, steps were taken in collaboration with the Civil Service Commission to develop more effective recruiting programs. Preliminary results have been encouraging although full effects will not be felt until next year.

MANAGEMENT SERVICES

The decision to employ management consultants to undertake a complete study of the Department of Public Works overshadowed all other occurrences in Management Services. Much of the year was spent preparing for the study, drafting terms of reference, obtaining necessary authorities, arranging for office accommodation and secretarial help, and interviewing consulting firms.

It was decided the most effective approach would be to form a study team of management consultants and civil servants under the direction of a senior project director from a consulting firm. In order that several departments could benefit from the experience, employees of other departments were employed on the study.

Three firms were invited to do a preliminary survey of the department. A committee of senior officials of the department and representatives of Treasury Board, studied their proposals and it was decided that the firm of Peat, Marwick, Mitchell and Co. would be invited to undertake the study.

Due to previous commitments of the firm, it was not until February 15 that the management study commenced. The first three weeks were taken up with planning in detail, and training of the study team.

Because of the magnitude of the project, it was decided that the study should be broken down into three phases:

Phase 1

- A detailed review of the existing practices at head office and at district offices.
- Analysis of the existing organization and management systems, development of proposals for improved organization and operating systems in broad form.
- Submission of these proposals to the Deputy Minister for consideration and approval in principle.

Phase 2

- Development of detailed proposals for improved organization and operating systems.
- Detailed definition of management programs and activities.
- Further visits to district offices and research carried out at head office to determine systems requirements in the areas of financial, personnel, contract, and material management in accordance with the approved organization operating systems.
- Development in broad form of proposals in these system areas.
- The detailed proposals on organizations and operating systems and the proposals in outline form on all other aspects of the terms of reference reported on and presented to the Deputy Minister for approval.

Phase 3

- Preparation in detail of approved recommendations for implementation.
 - Development of plans for implementation.
 - Submission of further proposals to the Deputy Minister.
 - Preparation and presentation of the survey report to the Deputy Minister.
- The plan also called for the survey to be divided into five areas:

1. Role and operations of the department — functions, all aspects of organization and definition of programs and activities for management purposes.

2. Operating systems — planning, production, contracting, supervision, administration and management of the construction and property management activities of the department.
3. Financial management systems — all aspects of financial management such as organization, planning, control, accounting, reporting and auditing.
4. Personnel management systems — all aspects of personnel management including personnel policy, organization, staff, manpower planning, employee relations, performance measurement, classification and pay systems.
5. Material management and administrative systems — a program of material management systems as well as general administrative systems.

By the end of the year the study was proceeding according to plan. The field investigation was done and the study team was involved in the summary, analysis and identification of problem areas in the function, organization, operating systems, financial management, material and administrative systems and personnel management of the department.

PROPERTY AND BUILDING MANAGEMENT

When a ceremony is staged on Parliament Hill or a building is officially opened in a Canadian village, it can be taken for granted that the "Silent Service" of Property and Building Management has been on the job. These services, running elevators, winding clocks, flying flags and a host of other custodial duties, are all in the day's work for the 7,000 men and women of the branch.

With the aid of private forces engaged under contract, they make it possible to maintain and operate essential accommodation for more than 100 different federal authorities in 3,000 premises having a floor area totalling one and a quarter square miles.

NET USABLE AREA

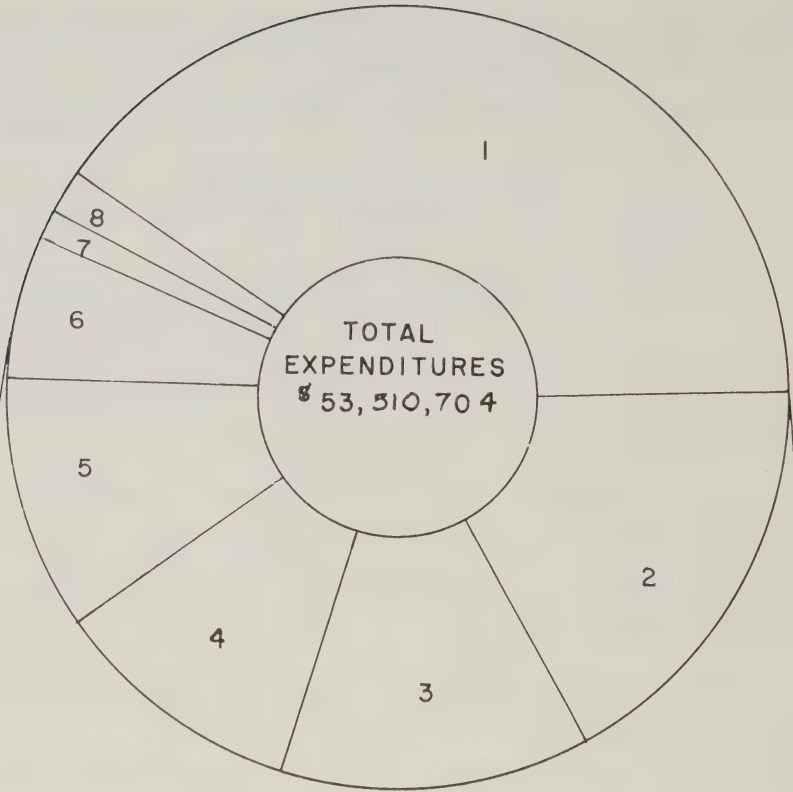
LOCATION	Crown-owned bldgs.		Leased premises		Operating costs including rents \$
	NO.	(000's) SQ. FT.	NO.	SQ. FT. (000's)	
Newfoundland	160	820	37	32	1,685,121.65
Nova Scotia	143	787	41	152	1,457,446.37
Prince Edward Island	15	162	3	1	228,354.68
New Brunswick	95	787	32	39	1,014,849.72
Quebec (except Hull)	366	4,237	246	773	7,110,016.90
Ontario (ex. National Capital)	395	5,392	273	805	7,913,128.07
Manitoba (incl. Ft. Churchill)	376	2,905*	65	89	6,443,275.10
Saskatchewan	157	998	103	76	1,423,861.85
Alberta and N.W.T.	136	1,386	137	196	2,341,832.04
British Columbia and Yuk. Ter....	137	2,372**	89	201	3,147,851.54
England	1	106	3	3	417,755.07
U.S.A.	—	—	3	6	46,880.70
Other Foreign	—	—	1	1	4,818.77
National Capital	122	8,920	151	1,863	20,229,123.64
	2,103	28,872	1,184	4,237	53,464,316.10

* Total area of buildings in Fort Churchill is an approximate figure.

** Not including accommodation associated with North West Highway System.

The year's operating cost per square foot of net usable area is \$1.61 which includes rents for leasehold quarters and the cost of repairs and upkeep.

With salaries and wages at 40.1% compared with 42.2% in the previous year, the policy of hiring private contractors for various building services, as staffs are depleted by normal separation, is successfully indicated in spite of the growth of responsibilities.



	EXPENDITURE OBJECT	PERCENTAGE OF EXPENDITURE
1	SALARIES AND WAGES	40.1 %
2	RENTS	16.8 %
3	BUILDING REPAIRS	13.0 %
4	MUNICIPAL SERVICES	11.4 %
5	MATERIAL & SUPPLIES	10.8 %
6	PROFFESIONAL & SPEC. SERVICES	6.5 %
7	MOVING EXPENSES	0.4 %
8	OTHER DIRECT EXPENSES	1.0 %

With so many buildings differing in age, design, use, location and size and with such a wide variety of occupants, a high number of repairs and alterations are inevitably required. Private contractors are used as much as possible for this work. During the fiscal year, nearly 16,000 contracts were awarded for a total value in excess of \$5,000,000 for work of this kind in addition to jobs done by branch staff.

PROPERTY AND BUILDING MANAGEMENT BRANCH

Repair, Upkeep and Alteration Contracts 1964 - 65

DISTRICT OFFICE	Up to \$1,500		\$1,500 to \$5,000		Over \$5,000		TOTAL	
	No.	Value	No.	Value	No.	Value	No.	Value
St. John's, Nfld.....	700	\$100,000	18	\$ 48,272	4	\$ 50,235	722	\$198,507
Charlottetown, P.E.I.	48	13,750	2	3,000	—	—	50	16,750
Halifax, N.S.	1,500	95,800	2	6,386	11	138,370	1,513	240,556
Saint John, N.B.	550	75,475	9	22,876	3	29,965	562	128,316
Quebec, P.Q.	650	90,504	20	57,502	7	88,877	677	236,883
Montreal, P.Q.	2,016	170,991	27	70,874	12	129,148	2,055	371,013
National Capital	3,720	798,340	200	554,920	45	465,508	3,965	1,818,768
Ottawa Dist., Ont. ..	87	48,275	8	18,750	1	10,500	96	77,525
Toronto, Ont.	1,495	186,645	26	69,800	17	170,000	1,538	426,445
London, Ont.	300	57,869	14	45,495	5	39,109	319	142,473
Winnipeg, Man.	400	70,000	21	53,000	6	43,000	427	166,000
Saskatoon, Sask.	358	86,000	13	36,569	9	91,296	380	213,865
Edmonton, Alta.	980	165,000	12	42,000	12	195,000	1,004	402,000
Vancouver, B.C.	800	160,000	16	45,314	11	166,785	827	372,099
Whitehorse, Y.T.	1,768	211,068	16	36,498	9	72,257	1,793	319,823
TOTALS	15,372	2,329,717	404	1,111,256	152	1,690,050	15,928	5,131,023

Branch staffs work at an endless variety of projects necessitated by the intensive and diverse use made of the buildings under the control of the branch. In Ottawa alone, the Superintendent of Government Buildings, who acts as a District Manager in the National Capital area, issued during the year over 72,000 work orders for jobs, ranging from fixing a door knob to erecting bleachers on Parliament Hill. This National Capital area is naturally the district containing the largest concentration of federal government buildings.

To service these buildings, the Superintendent of Government Buildings has a staff of 2,380 made up of the following categories:

Cleaning staff	1,109	Trades staff	272
Elevator staff	204	Labor pool	55
Heating staff	615	Transport staff	18
Technical and administrative staff (approx.) 107			
His total budget exceeds \$22 million a year.			

Ceremonies in Ottawa occupy more of his attention than is the case with managers in other districts and his responsibilities in this connection not only extend to platforms and decorations, but also include physical arrangements for radio and television broadcasts, and facilities for the press. Furthermore, he must work in close liaison with federal, provincial and municipal police, other government departments and agencies as well as many private organizations who are associated with the use of the national monuments on commemorative occasions. Elsewhere, throughout the country, and abroad, the services of the branch are supervised by a group of district managers, who, with their staffs, maintain local service to officials and private citizens in need of their assistance.

Each district has its quota of problems and challenges, far too many for individual recital, but a few unusual events are worthy of mention.

During the year, the transfer of Fort Churchill from the Department of National Defence to the Department of Public Works, was completed. The transition from military to civilian control was not without incident. In place of a "camp" controlled as a single unified establishment, the department decided to create a "municipality"

where each separate facility was administered by the most appropriate agency. Some of the military accommodation was adapted and turned over to the Department of Northern Affairs and National Resources for use as hostels, schools and recreational space, for Eskimo children, in time for the 1964-65 school year.

At the Fort Churchill Military Hospital, an arrangement was made through the Department of National Health and Welfare for the Manitoba Hospital Commission to assume responsibility through a local hospital board. In actual operation it proved to be extremely difficult for the commission to engage and retain professional staff, particularly doctors. To overcome the anxiety of the employees and their families, arrangements were made for the Department of National Health and Welfare to set up a medical clinic staffed by federal doctors to work in conjunction with the province's hospital and so the medical needs of this largely federal community were thus ensured.

At Frobisher Bay, N.W.T., the DPW role, as described in last year's report, has been transferred to the Department of Northern Affairs and National Resources.

The sound reinforcement and translation systems in the Senate and the House of Commons Chambers have been improved and extended as a first step on a program that will result in the removal of the present unsightly hanging microphones from the House of Commons Chamber, and the installation of four additional language channels.

The adoption of the Canadian Flag and its use commencing February 15, 1965, involved the branch in a considerable program to assist in the successful inauguration of our new national symbol.

The branch shared in the successful conversion of the Northwest Highway System to civilian control.

The administrative role of the branch in the housing field has increased steadily with the transfer of responsibilities and formation of housing pools at Camp Takhini, Y.T. (including the Northwest Highway System), Fort Simpson, N.W.T., and Fort Churchill, Manitoba; all additional to the existing pools at: Inuvik, Fort Smith, Churchill (Townsite), Hay River, Kitimat, Yellowknife, Whitehorse.

The Department of Public Works housing pool in isolated northern areas has 700 buildings with 1,300 units of married accommodation and 600 units of single accommodation.

This year the department embarked on a new policy of meeting requirements for additional living quarters at northern pool housing locations by leasing accommodation constructed by private entrepreneurs. The first such acquisition was at Yellowknife, N.W.T. The long range intent is to encourage expansion of the northern communities by private enterprise and the gradual withdrawal of the government as a residential landlord in these localities.

There are many technical problems in managing the general accommodation pool. They include the adequate allocation of existing space, assessment of space needs and supplementation of Crown-owned buildings with leased space as required. These can be problems of a high administrative order and must be resolved with due regard for timing, economy and satisfaction of the user-department.

In Ottawa the branch arranged five major leasings. The Department of Citizenship and Immigration was moved into 200,000 square feet of leased space so that the Crown-owned building it occupied could be demolished to enlarge a site for the new National Museum. About 80,000 square feet was obtained to accommodate additional requirements of the integrated Departments of Defence Production, and Industry. Leased accommodation has also been arranged, through a public tender call, for the Department of Labor, 200,000 square feet, and the Department of Northern Affairs and National Resources, about 172,000 square feet. One hundred and seventy-five thousand square feet has been arranged also for the Secretary of State. The space for these last mentioned three departments was to be available for occupancy during the summer of 1965. In all five cases, sufficient Crown-owned space was not available.

A continuing review of accommodation is made in collaboration with district officers and user departments. As a result, during the year major alterations or new construction at 78 locations involving 1,173,500 square feet of accommodation were recommended for construction.

A major new building, approved for construction in Ottawa, as a result of studies made by the branch, involves 387,000 square feet for the Department of National Revenue, Taxation Division, consisting of 160,000 for Headquarters and 227,000 for the Taxation Data Centre.

Studies were made and reports were prepared to promote the most efficient use of existing and future accommodation and to expand the scope of existing space standards. The largest building studied was the Printing Bureau, Hull, P.Q., which contains about 716,000 net square feet of space. Six district offices of the Department of National Revenue, Taxation Division, which occupy a total of 449,000 net square feet, were analyzed for future space requirements.

In co-operation with officials of the Post Office Department, a detailed analysis of the work space of 75 post offices in Ontario, ranging in size from 2,500 to 40,000 net square feet each, resulted in the adoption of an improved formula and procedure for assessing work space requirements. The formula is based on statistical data, such as households and business establishments served, rate of growth within the area served, and the volume and type of mail handled within a period of time.

A joint committee of this branch and the Building Construction Branch has been studying the consequences of air-conditioning office buildings. The objective is to recommend a suitable policy for both future and existing buildings. The committee expects to report early in 1965-66.

The branch continued its policy of endeavoring to rent vacant space in Crown-owned buildings not currently required for federal purposes. Revenue from this source amounted to \$440,388.00. Only 2.5 per cent of the total space managed by the branch was vacant at the end of the year.

Revenue from the renting of Crown-owned housing amounted to \$1,997,862. Commission revenue from public telephones in federal buildings totalled \$25,419 for the year.

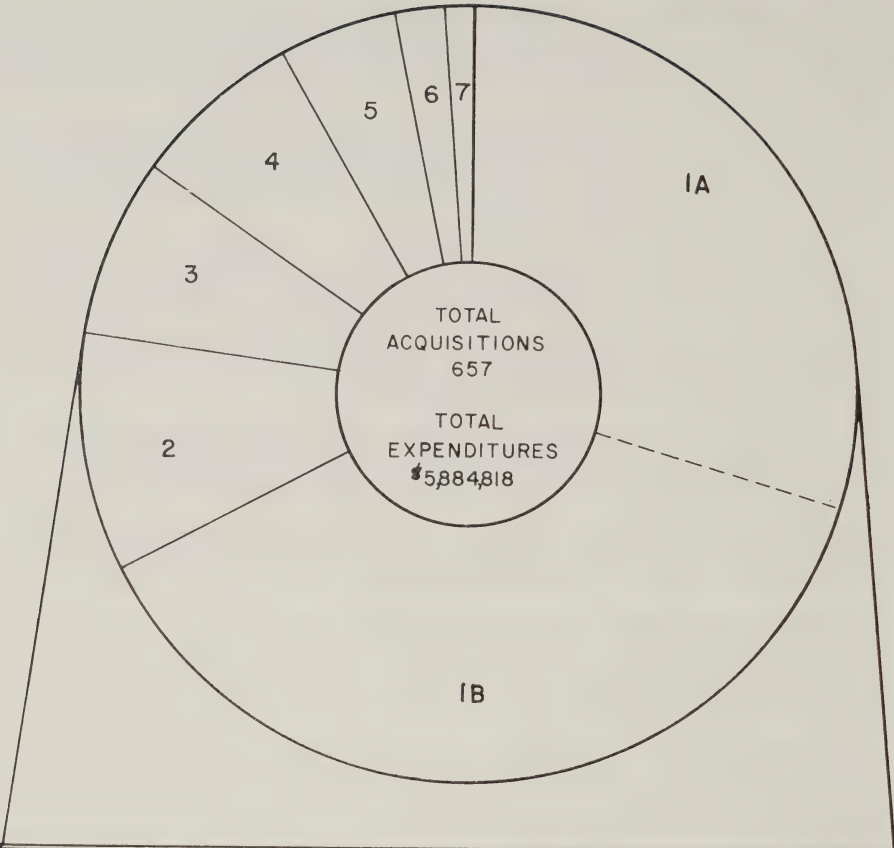
Property and Building Management Branch is responsible for all land acquisitions and disposals for this department and client departments using property purchasing facilities of the branch. It had an exceptional year in point of number of property acquisitions.

Total number of sites acquired for the fiscal year amounted to 657 for a total expenditure of \$5,884,818.

The approximate percentage of total acquisitions for this and client departments is shown here:

An additional 1,096 sites were at various stages of acquisition (509 of them are now Crown-owned, by expropriation, pending settlement) at the close of the fiscal year at an estimated cost of \$20,000,000.

It is also the responsibility of this division to advise client departments with regard to disposal procedures, assisting in obtaining independent appraisals, and advise as to fair valuation of sites client departments may wish to obtain. Sixty-three properties were declared surplus to Crown Assets Disposal Corporation during the year.



DEPARTMENT		PERCENTAGE OF ACQUISITIONS
IA	D.P.W. (POST OFFICES)	29 %
IB	D.P.W. OTHER ACQUISITIONS	38 %
2	JUSTICE,RCMP & PENITENTIARIES	10 %
3	FISHERIES	7 %
4	MINES & TECH	7 %
5	NAT'L REVENUE	5 %
6	HEALTH & WELFARE	3 %
7	EMO & TRANSPORT	1 %

HARBORS AND RIVERS ENGINEERING BRANCH

The Harbors and Rivers Engineering Branch is the chief marine works agency for the Federal Government. As such it is responsible for more than 4,000 ports and harbors along the Great Lakes and inland waterways as well as Canada's three coastal oceans. During the year, new construction, repairs and operations were valued in excess of \$30,000,000.

The scope of these undertakings served to underline the continuing importance of water transportation as a factor in economic growth. The quickening pace of industrial expansion and the expressed intention of having its benefits reach all parts of the country serve to forecast even greater marine activity in the future. Agencies such as the Atlantic Development Board and the Agricultural Rehabilitation and Development Administration (ARDA) have served to promote marine works affecting the fishing industry. Their influence also has been felt in the pulp and paper, mining and other heavy industries. Since the need for improved shipping facilities goes hand in hand with industrial expansion, the department has played a prominent role in the Treasury Board Advisory Committee on Marine Construction, a special inter-departmental committee set up to review policies and co-ordinate the planning of marine works on a broad scale.

Projects undertaken by the branch during the 12-month period included construction and repair of wharves, breakwaters, marine haulouts, launching ramps and protection works. Dredging to improve or maintain navigation channels was carried out at 450 locations, 70 per cent carried out under contract and the remainder by the branch using departmental equipment. Other duties included the operation of major drydocks at Esquimalt, B.C., and Lauzon, Que., as well as facilities for minor ship repairs at Selkirk, Man. The branch also operated control dams on the Ottawa and French Rivers and a lock and dam on the Red River. In the Ottawa area maintenance and repairs were carried out on 19 bridges on behalf of the Development Engineering Branch.

Indicative of the influence of an expanding economy on the program of the branch were the undertaking of major harbor developments at Belledune Point, N.B., ferry facilities at Grand Manan, (Blacks Harbor and North Head) N.B., and ferry terminals for the Department of Transport at North Sydney, N.S., Port aux Basques and Argentia, Nfld.

Planning of the Belledune Point harbor development was one of the year's highlights. Work involves building a complete harbor to provide for shipment of general cargo and to serve a \$180,000,000 industrial complex of base metal smelters, a steel mill and chemical and fertilizer plants now under construction. Harbor costs of approximately \$15,000,000 will be shared between industrial interests, the National Harbors Board and the Public Works Department.

Increased traffic between the mainland and Newfoundland has created a need for improved ferry service in the Gulf of St. Lawrence. As a result, the Department of Transport, which is responsible for maintaining an adequate level of service, has requested that the work be undertaken by this department. The year saw completion of planning for terminals at North Sydney, Port aux Basques and Argentia. Work on the first phase of the North Sydney terminal started in the latter part of the year and construction of all three terminals was slated to proceed without delay.

Modernization of the St. John's, Nfld. harbor at a cost of more than \$19,000,000 was essentially completed during the year with only one contract unfinished. Other major projects in Newfoundland included a 500-ton capacity marine haulout at Clarenville and a 75-ton haulout at Lewisport for the Department of Transport. There also was construction of a major breakwater at Green Island Cove in St. Barbe North District, a \$500,000 wharf extension at St. Alban's on Bay D'Espoir and wharf construction at Baie Verte and Charlottetown in Bonavista Bay.

Prince Edward Island projects worth more than \$1,000,000 were completed for the Transport Department at Charlottetown and at Borden.

Apart from the North Sydney ferry terminal, major Nova Scotia projects included a Transport Department Marine Agency wharf at Dartmouth and harbor improvements for the fishing industry at Saulnierville. The latter project utilized the unique Canadian-designed perforated breakwater first developed for Baie Comeau, Que. Based on the same principle as acoustic tile, the breakwater has holes that serve to absorb and reduce the strength of the waves and is specially suited to open waters.

Significant harbor works undertaken in the province of Quebec included a wharf at Black Cape (New Richmond) under an agreement with Bathurst Pulp and Paper Company; ferry terminals at Pointe au Pere, Riviere du Loup, St. Simeon and Baie Comeau; a start on construction of the first phase of the \$7,000,000 harbor development at Gros Cacouna; and construction and repair of numerous protection works on the St. Lawrence-Richelieu River system.

One of the most challenging projects was the \$13,000,000 ice control structure in the St. Lawrence River, a few miles upstream from the site of Expo '67. When complete, the structure will span 8,500 feet across the river on 72 piers standing 40 feet above the river level. Large, electrically-operated steel gates will be slung between the piers and lowered to hold back drifting ice during winter without affecting river flow.

Construction at Great Lakes ports was lighter than in previous years. Improvements at the port of Hamilton continued with further additions to the Centennial Docks at Catherine Street and reconstruction of sections of the Burlington Channel piers. At the Lakehead breakwater repairs and dredging were carried out. On Lakes Erie and Huron dredging and wharf reconstruction were undertaken at several locations.

The departmental dredging plant had a busy year in the Prairie provinces and Northwest Territories. Maintenance dredging was carried out as usual on the Red River and Lake Winnipeg. On the 1,700-mile Athabaska and Mackenzie River waterway system five departmental dredges and one snagboat were employed full time through the navigation season.

First stage of the Nanaimo harbor assembly wharf extension in British Columbia was completed and the second stage well under way. Major dredging was carried out in the Fraser River both under contract and with the departmental plant.

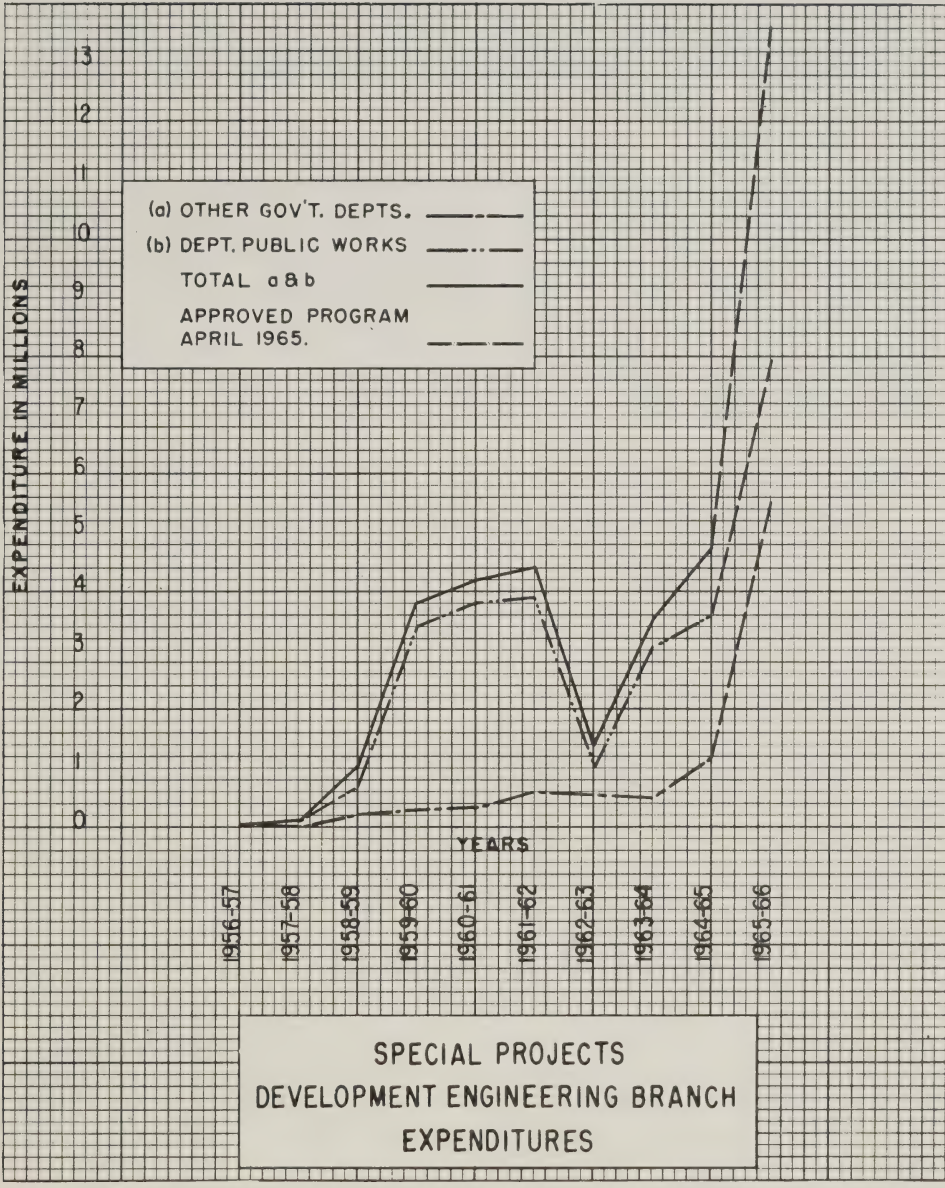
The branch's specialized engineering talents also were called upon for an unusual salvage operation on behalf of the Transport Department. The Public Works Department was called in to supervise salvage of an oil barge which sank in nearly 300 feet of water near Pasley Island at the entrance to Howe Sound, B.C. The operation was necessary to stop contamination of coastal waters and the threat to wildlife resulting from the seepage of the barge's cargo of 300,000 gallons of a heavy, tar-like fuel oil. After painstaking weeks of work at hazardous depths by diving crews, the barge was recovered successfully.

The branch continued its participation in the investigations by the International Joint Commission into the feasibility of a seaway canal to link the St. Lawrence and Hudson Rivers through the Richelieu River and Lake Champlain. A study of the effect of the fluctuating levels of the Great Lakes on harbor and marine installations and the erosion of the lake shores has been started by the branch as its contribution to a study of Great Lakes levels by the commission.

A preliminary investigation was carried out of the engineering feasibility of improving Riviere des Mille Iles and Riviere des Prairies for navigation by small boats. Engineers in the 14 district offices also carried out many miscellaneous investigations as a result of requests from the public. These investigations provide valuable information for the planning of future branch programs.

DEVELOPMENT ENGINEERING BRANCH

Diversification of the activities of the Development Engineering Branch within the engineering field continued during the year. Federal departments and agencies



expanded their use of the services which are now provided and indicated with their forecast of the coming year (see graph), that this trend will be accelerated. The main activities of this branch encompass: location engineering and construction of highways, roads and bridges; laboratory and field testing; area development works; water supply and sewage disposal schemes; and special undertakings such as the development of the Maligne Lake and Lake Louise areas.

Trans-Canada Highway

The branch administers the Trans-Canada Highway Agreements which provide for the construction of a two-lane all-weather paved highway with costs shared by the federal and provincial governments. Activity on the Trans-Canada Highway during 1964-65 was most noticeable in Quebec and Newfoundland where new sharable works valued at \$59,200,000 and \$21,800,000, respectively, were undertaken. Full details of the progress of construction during the year, commitments accrued and payments made to each province under agreements and details of construction through the National Parks are reported in the annual "Report of Proceedings under the Trans-Canada Highway Act."

Roads to Resources

The branch provides engineering supervision and control for the Roads to Resources Program sponsored by the Department of Northern Affairs and National Resources. New work approved under the program during 1964-65 fiscal year was valued at \$14,000,000. Details of progress during the year are reported in the annual report provided by the Department of Northern Affairs and National Resources.

Atlantic Development Board

The branch also has been requested to provide engineering supervision and control for two highway programs in the Atlantic provinces and two power projects, one in New Brunswick and the other in Newfoundland. This is being sponsored by the Atlantic Development Board. Announced in 1964-65, these projects will involve an expenditure of federal funds totalling \$80,000,000. Details of progress during the fiscal year are reported in the Atlantic Development Board's annual report.

Reconstruction of Highway No. 6 in the Counties of Matane and Gaspé North — Quebec

As announced in August, 1964, the federal government is prepared to contribute up to \$13,000,000 towards a section of Highway No. 6 in Quebec approximately 86 miles in length along the north shore of the Gaspé Peninsula. As of March 31, 1965, negotiations were under way with the province of Quebec relative to a covering agreement which is to be administered by this branch.

Macdonald-Cartier Bridge

During the 1964 construction season, work continued on the superstructure of this crossing and deck steel installation was completed October 16, 1964.

The superstructure was built out from each shore to meet in mid span, and the final section was installed on September 10, 1964. (See photo.)

It is interesting to note that in the 2,030 feet of curved structure, the girder elevation at mid span differed from that specified only by ½ inch on one side, and 3/16 inch on the other.

Construction of the structure was on schedule at year's end with completion due October 15, 1965. Work to be completed was the pouring of the concrete deck, installation of light standards and electrical distribution, and installation of the hand rail.

Progress on the approach work being carried out by the provinces of Quebec and Ontario also was due for completion October 15.

Northumberland Strait Crossing

During 1964-65, extensive model studies and further foundation studies of the Northumberland Strait Crossing helped to solve many of the engineering problems involved in this huge project. Not the least of the problems was the question of floe ice and the forces asserted by it. Little has previously been known of the actual stresses created by a non-homogenous mass of sea ice as it hits the foundations of a bridge. The variable thickness of ice floes, different velocity of flow, and varying density have made it difficult to establish design criteria in this regard. An ice flume model has helped to establish the shape of the bridge piers and the design for an ice deflector. However, information of actual field conditions is continuing. During the year, although test panels were in operation, ice conditions in the Strait were too light to give conclusive information on pressure value.

Northumberland Consultants Limited were nearing completion of a comprehensive report and recommendation for the final design of the crossing.

Heron Road Bridge

On May 14, 1964, the department was granted authority to enter into agreement with the City of Ottawa for several projects within the area. The six-lane Heron Road Bridge will span the Rideau River, Colonel By Drive and Rideau Canal in the vicinity of Confederation Heights and provide easy access between the south and west part of the city.

The planning and design stages were near completion and one contract was awarded during the winter by the City of Ottawa. A completion date for the bridge has been set for the fall of 1966.

Northwest Highway System

On October 2, 1963, the Cabinet approved a recommendation of the Advisory Committee on Northern Development that responsibility for the 1,220 miles of the Alaska Highway, the 117 miles Haines cut-off road in Canada and a number of air-field access roads, be transferred from the Department of National Defence to the Department of Public Works. This was implemented on April 1, 1964.

After the take-over economic and engineering studies were originated to assess the present grade and alignment and obtain an estimate of the cost of reconstruction where applicable. Maintenance was continued with the standard set previously under DND administration. Consideration is being given, however, for maintenance by contract of a 180-mile section at the southern end of the highway. Progressive steps are being taken to facilitate handover of the Yukon section of the highway to the territorial government. A tentative target date has been set for 1967. Of prime importance to this handover is the integration of facilities at Whitehorse with the municipality. Under study is the integration of water supply and sewage systems, power, bus, fire, school and community services.

On the Haines cut-off road, the winter's operations were reviewed by the Committee on Pacific Coast Transportation in July 1964. As a result a recommendation was made to Cabinet that the road should be kept open for a further winter as a final part of the experiment.

National Parks — Northwest and Yukon Territories

Several new projects were started in the National Parks and some, from the previous year, were completed. This work, mainly highway and road construction, was undertaken for the Department of Northern Affairs and National Resources.

Avalanche defences in Glacier Park progressed with the completion of one more snowshed and retention fences. The fences are located in areas where avalanches are likely to form. They act as barriers and retain snow which otherwise would slide.

Work on Jasper-Edmonton, Banff-Jasper, Banff-Windermere and Chief Mountain Highways was in the final stages. Severe flooding in the Waterton Lakes National Park delayed the work briefly. Approval was received for the Jasper-Yellowhead Highway and the first eight miles will be constructed in the 1965-66 fiscal year.

Surveying and planning was carried out in the Maligne Lake and Lower Lake Louise areas for layout of recreational facilities and highway. The Bow River Bridges, giving access to the camp site, near Lake Louise, were started and will be completed early during 1965-66. In Eastern Canada, piers for the new Covehead Inlet Bridge in Prince Edward Island have been placed, and the bridge is expected to be opened for the tourist season of 1965.

Work on the Eastport Road in Terra Nova National Park will also be completed early in the 1965-66 fiscal year.

In the Northwest Territories, construction continued on the Fort Smith and Pine Point Highway and, with the completion of the Big Buffalo River Bridge, the last major obstacle on the road to Pine Point was surmounted.

Work on the Watson Lake - Ross River Road in the Yukon Territories entered the last phase of construction and will be completed in the summer of 1965. A start will be made next fiscal year on the first 50 miles of the Ross River-Carmacks Road. Surveys also will locate the last link between Carmacks and Snag at the Alaska border.

Miscellaneous Projects

The seismic array and vault in the Yellowknife area was completed in 1964 on behalf of the Department of Mines and Technical Surveys. Several access roads to light stations have been located for the Department of Transport and a start on construction scheduled for 1965. Work continued on surveys and construction of utilities and parking facilities for other departments and agencies.

The programs for which the branch was responsible in the year totalled \$107,500,000 as follows:

Department of Public Works

Branch Vote

Operation and maintenance	\$ 328,000
Northwest Highway System	9,400,000
International and Interprovincial bridges and other engineering projects	2,800,000
Trans-Canada Highway through parks	200,000
Testing Laboratories	1,090,000
Work on behalf of other branches of the department	430,000
	<hr/>
	\$ 14,248,000

Other Government Departments

Northern Affairs and National Resources	
National Parks	\$ 4,345,000
Northern Administration	2,950,000
Transport	280,000
Agriculture	275,000
Justice	180,000
Emergency Measures	100,000
R.C.M.P.	60,000
Mines and Technical Surveys	30,000
	<hr/>
	\$ 8,210,000

Federal Aid Projects

T.C.H.	\$ 76,500,000
Roads to Resources	
(engineering and supervision only)	8,500,000
	<hr/>
	\$ 85,000,000

GRAND TOTAL	\$107,458,000
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TESTING LABORATORIES

The Testing Laboratories' work continued on an expanded basis in respect to automotive safety seat belts and marine lifejackets, as well as a number of other projects. Development and investigational activities increased and quality control work continued at a higher overall level than in the previous year.

Internal operational procedures were reviewed. An increase in samples processed and data returned as a result of development activities can be attributed to the internal adjustments made possible by this review.

There were several new projects. Ships' navigational lights were tested to determine their effectiveness. Safety lights for use on lifejackets also were examined. Plastic materials were the subject of a unique investigation to determine their suitability for use in blast doors of fallout shelters.

It was noteworthy that certain methods for testing automotive seat belts developed by the laboratories were incorporated into standards set by the United States Society of Automotive Engineers and into United States Federal Government legislation governing the use of safety belts.

The following programs illustrate the wide range of services provided during the year:

Performance Testing of Lock and Latch Sets — Plans were drawn and an apparatus constructed to carry out simulated performance testing of lock and latch sets. It is expected that a testing program will be under way shortly with the apparatus to determine some of the basic operating characteristics and performance capabilities of these items of door hardware. Testing also will be carried out in conjunction with the qualification of these mechanisms for an interdepartmental qualification board.

High Temperature Thermal Insulation Testing — Laboratories commenced the qualification testing of high temperature thermal insulating materials for the Royal Canadian Navy. This requires complex procedures and equipment and unremitting attention to detail to ensure the accuracy of results. The types of materials tested are those used for the thermal insulation of boilers and steam pipes.

National Museum Site—An interesting discovery during sub-surface examination of the site for the new National Museum was that the six-storey building occupying the site was resting on clay. The building has since been removed.

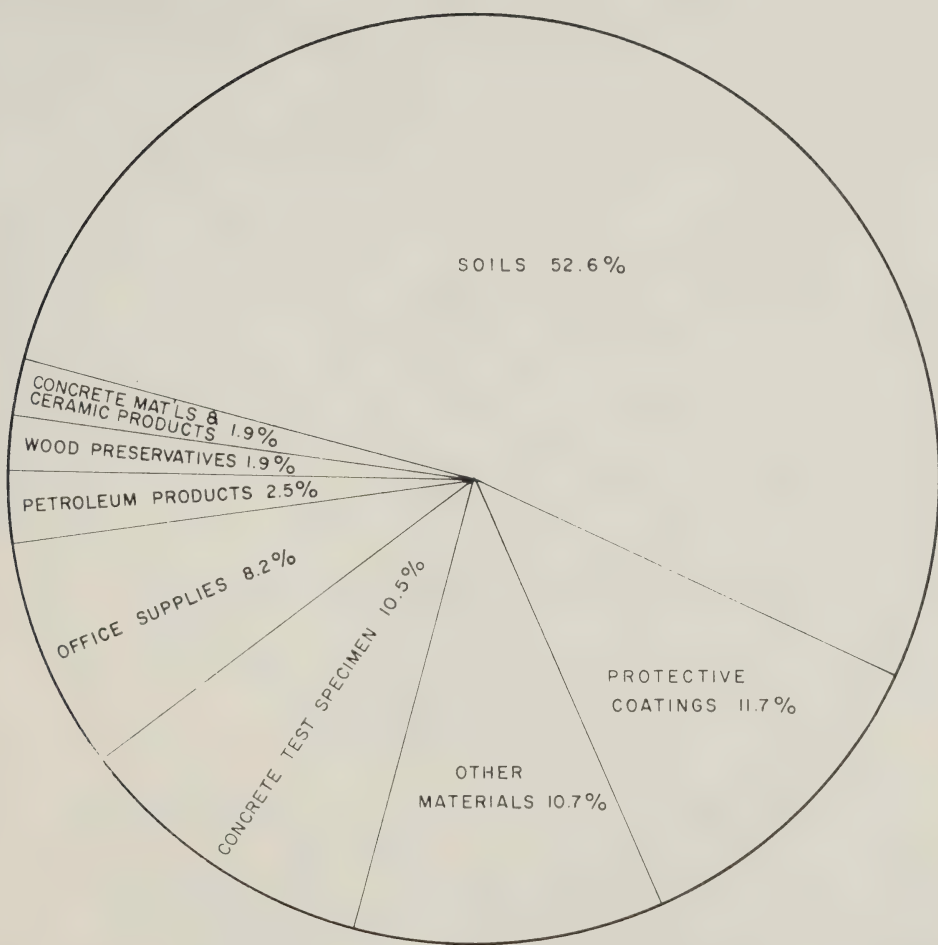
Richelieu-Champlain Waterway — Seismic methods were used to supplement and extend data obtained from test borings along the proposed route of the waterway. The use of this new technique enabled a sharp reduction in the amount of test borings which otherwise would have been required to amass a similar amount of data.

Automotive Safety Seat Belts — An extensive investigation is under way to obtain information of the aging of seat belt webbing materials in actual use. Of particular interest here is the possible effect on the strength properties of the webbing of several years' service in motor vehicles. In this endeavor we are receiving the close co-operation of the Royal Canadian Air Force which is supplying safety belts removed from its vehicles.

The year was marked by the high level of activity maintained throughout all sections of the laboratories. Numerous projects carried over from the previous year were continued and several new undertakings were embarked upon.

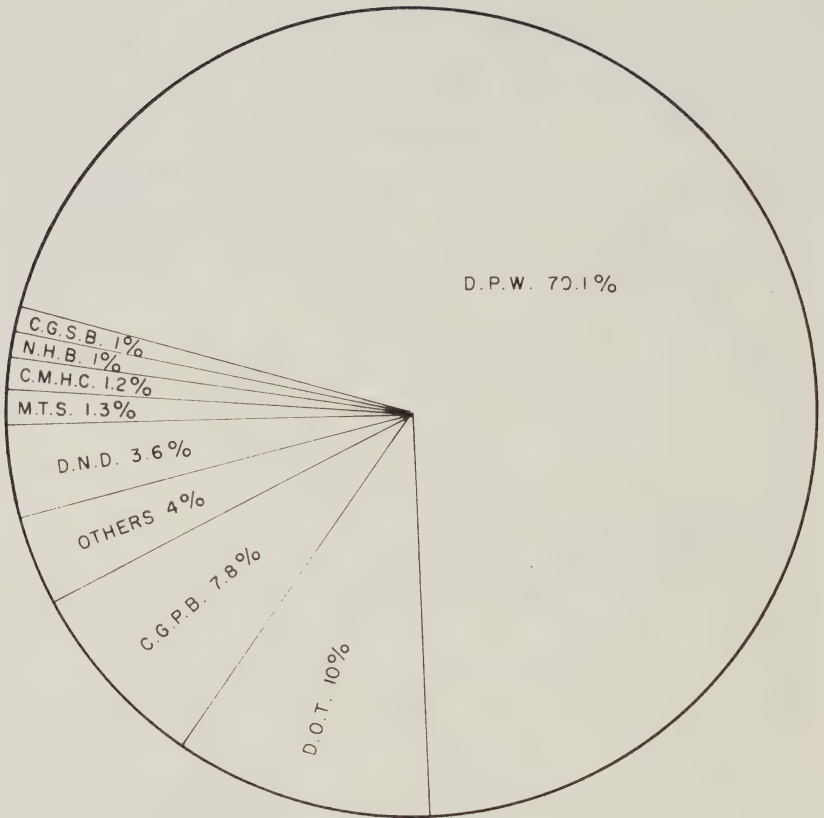
The following graphs have been compiled to illustrate the activities of the Laboratories during the year:

KINDS OF MATERIALS TESTED



BASED ON TIME

DEPARTMENTS AND AGENCIES FOR WHOM WORK DONE.



BASED ON TIME

LEGEND

D.P.W.	DEPT. OF PUBLIC WORKS
C.G.S.B.	CDN GOVERNMENT SPEC. BOARD
N.H.B.	NATIONAL HARBOURS BOARD
C.M.H.C.	CENT. MORTGAGE & HOUSING
M.T.S.	MINES & TECH. SURVEYS
D.N.D.	DEPT. OF NATIONAL DEFENCE
C.G.P.B.	CDN GOVERNMENT PRINTING BUREAU
D.O.T.	DEPT. OF TRANSPORT

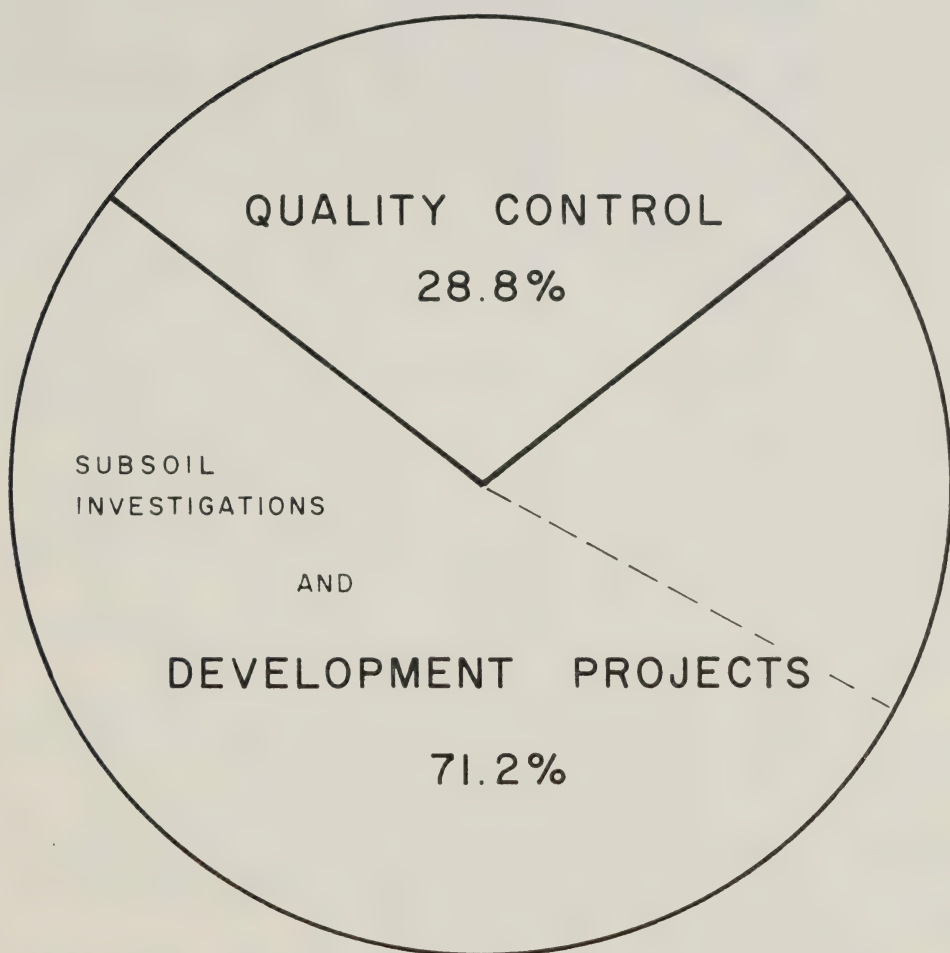
OTHERS

DEPT. OF VET. AFFAIRS
DEPT. OF JUSTICE

OTHERS (CONT'D)

DEPT. OF NORTHERN AFFAIRS
DEPT. OF AGRICULTURE
POST OFFICE DEPT.
CDN STANDARDS ASSOCIATION
R.C.M.P.
ATOMIC ENERGY
ROYAL CDN MINT
PUBLIC ARCHIVES
NTL CAPITAL COMMISSION
ST. LAWRENCE SEAWAY

TYPE OF WORK



BASED ON MAN/HOURS

BUILDING CONSTRUCTION BRANCH

The Building Construction Branch provides architectural and engineering services to federal departments requiring new buildings, alterations, additions or demolitions. During the 1964-65 fiscal year it awarded contracts worth \$60,746,272 compared with \$54,859,087 in the previous year. The total represents an increase in special-purpose building which outweighed reduced spending on general office accommodation.

As the government's main construction design agency it undertook 395 projects. At the end of the year work was still in progress on 346 of these and on 126 other projects for which contracts were awarded in previous years.

Of the new contracts, 297 were for general office accommodation which comes out of Public Works Department funds. These contracts accounted for approximately a third of the total amount. The remaining 98 contracts were for special-purpose buildings for which client departments supply funds. They accounted for two-thirds of the total, or nearly twice as much as in the previous year. A major factor in the increase was the award of 17 contracts for penitentiary construction which account for more than 40 per cent of the 1964-65 total.

Reorganization of the branch which began in 1963 was continued with efforts to obtain the establishment and personnel to allow district offices to carry out decentralized field operations.

At headquarters a specialist group for multi-storey office buildings was added to the groups already specializing in office buildings, laboratories, penitentiaries, northern construction and special projects. These groups act as an administrative control agency responsible for operational research, programming construction projects, defining project requirements and reviewing specialized design criteria.

Seven district units administer production of plans and specifications, supervise construction, maintain progress schedules and provide quality control of construction projects in progress. In addition to the seven design units there are three area offices located to provide better local service. A field mechanical and a field electrical engineer were added to each district design office during the year.

The branch also added two new disciplines to its specialized consultation services — town planning and interior design. The other services are mechanical, electrical and structural engineering, specifications and standard plans production.

The first results of a practical program of applied research to define and formulate more specific design criteria for the six specialized building types were published. The new Building Construction Branch Standards Manual is being developed as the main reference source of criteria for use in field offices.

The marked success of the internal design competitions in the previous year prompted new competitions within the branch during 1964 for standard building designs. The competitions were for SP12 standard post offices and for northern Indian and Eskimo schools. The winning designs are being developed as replacements for existing standard plans.

The Minister of Public Works Design Awards for Architecture were awarded for the first time. The program was instituted to recognize outstanding accomplishment in the design of federal government buildings for the department by consulting architects. Four winners were selected from work executed between 1961 and 1964.






Following is a resume of the programs undertaken by the specialist groups:

Office Building Group:

This group was in charge of planning and construction of office-type accommodation for the Labor, National Revenue and Post Office Departments, the Unemployment Insurance Commission and buildings operated by the Public Works Department's Property and Building Management Branch.

BUILDING CONSTRUCTION BRANCH

FIVE YEAR SUMMARY CHART

FISCAL YEARS	MILLIONS OF DOLLARS													NUMBER OF CONTRACTS			GROSS VALUE OF CONTRACTS
														D. P. W.	CLIENT DEPT.	TOTAL	
	5	10	15	20	25	30	35	40	45	50	55	60	65				
1960 - 61														187	83	270	\$ 31,440,435
1961 - 62														145	79	224	\$ 33,174,298
1962 - 63														135	51	186	\$ 33,363,195
1963 - 64														206	83	289	\$ 54,859,078
1964 - 65														297	98	395	\$ 60,746,272

LEGEND

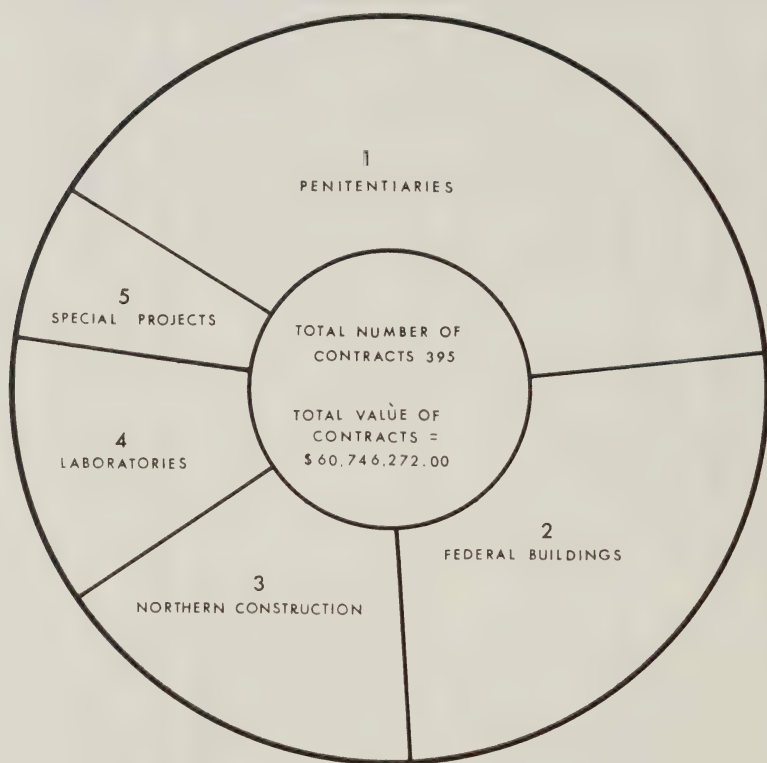
INDICATES FUNDS SUPPLIED BY DEPARTMENT OF PUBLIC WORKS

INDICATES FUNDS SUPPLIED BY OTHER GOVERNMENT DEPARTMENTS

BUILDING CONSTRUCTION BRANCH

PROGRAMME FOR THE FISCAL YEAR 1964-65

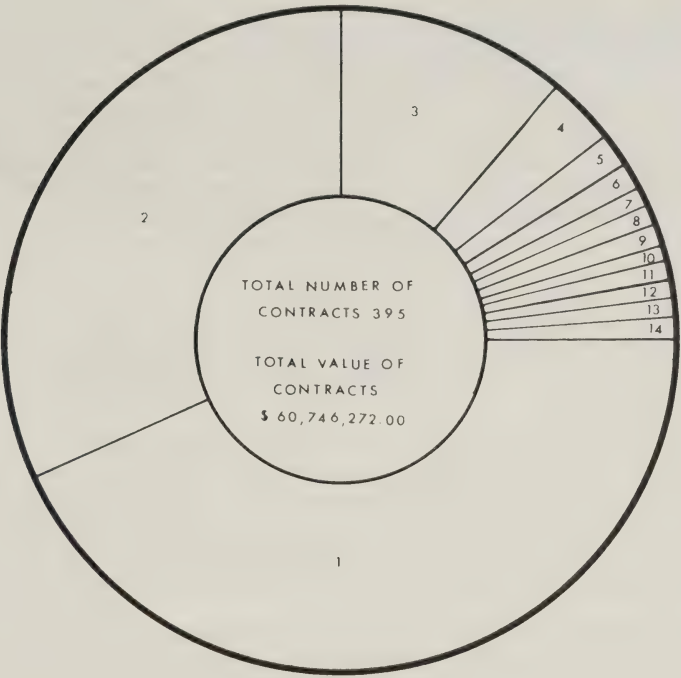
CHART INDICATES NUMBER OF CONTRACTS AND THE GROSS VALUE OF ALL CONTRACTS IN ACCORDANCE WITH THE FIVE MAIN ITEMS OF CONSTRUCTION.



TYPE OF CONTRACT	NUMBER OF CONTRACTS	PERCENTAGE OF TOTAL VALUE
PENITENTIARIES	17	40.97 %
FEDERAL BUILDINGS	290	26.08 %
NORTHERN CONSTRUCTION	45	16.42 %
LABORATORIES	31	10.81 %
SPECIAL PROJECTS	12	5.72 %
TOTAL	395	100. %

BUILDING CONSTRUCTION BRANCH

CHART INDICATING THE NUMBER OF CONTRACTS FOR EACH DEPARTMENT AND THE PERCENTAGE OF THE TOTAL GROSS VAULE OF, \$60,746,272.00 FOR ALL CONTRACTS IN THE PROGRAMME FOR THE FISCAL YEAR 1964-65.



NO.	NAME OF DEPARTMENT	NUMBER OF CONTRACTS	PERCENTAGE OF GROSS VALUE
1	JUSTICE	44	43.25 %
2	PUBLIC WORKS	297	32.43 %
3	NATIONAL HEALTH & WELFARE	8	11.59 %
4	AGRICULTURE	13	4.69 %
5	PRIVY COUNCIL	2	2.21 %
6	FORESTRY	3	1.64 %
7	TRANSPORT	5	1.31 %
8	CITIZENSHIP & IMMIGRATION	5	0.86 %
9	FISHERIES	5	0.83 %
10	NATIONAL RESEARCH COUNCIL	2	0.51 %
11	VETERANS AFFAIRS	2	0.34 %
12	MINES & TECHNICAL SURVEYS	6	0.19 %
13	NATIONAL DEFENCE	1	0.08 %
14	NATIONAL REVENUE	2	0.07 %
	TOTAL	395	\$ 60,746 272.00

A successful Winter Works Program was undertaken, using an improved design for the small revenue post offices. There were 176 of these built at an average cost of \$15,000. In addition 39 newly-designed SP8 post offices were built at an average cost of \$25,000.

There were 79 projects under active planning or construction, ranging from small federal buildings worth \$30,000 to the new postal terminal at Edmonton costing \$6,503,169.

The group continued to develop protected accommodation for the Emergency Measures Organization in projects across the country.

Another responsibility was the planning and construction of alterations and improvements to existing DPW buildings as required by the department's Property and Building Management Branch. This work included: new elevators for the Centre Block of the Parliament Buildings; renovations to the roof and improvements to the heating system at Rideau Hall; and layout of accommodation and interior design for new leased accommodation provided for the departments of Northern Affairs and National Resources, Labor, Forestry and Secretary of State.

Laboratories Group

This group was responsible for planning and construction of laboratories for the National Research Council, the Fisheries Research Board and the Departments of Agriculture, Fisheries, Forestry, Mines and Technical Surveys and National Health and Welfare.

Projects varied from the multi-million dollar Queen Elizabeth II Observatory at Mount Kobau, B.C., to a \$5,000,000 wind tunnel for the National Aeronautical Establishment at Uplands, Ontario. Typical projects completed during the year were the Forest Research Laboratory at Victoria, B.C., costing \$2,399,000, the Agriculture Research Laboratory at Swift Current, Sask. for \$2,515,600, and the Arctic Biological Station for the Fisheries Research Board at Ste. Anne de Bellevue costing \$404,654.

Projects still under construction at the end of the year were the Environmental Health Laboratory for the Health Department at Ottawa costing \$2,672,030; and additions and alterations to the Pulp and Paper Research Institute at Pointe Claire, Que. costing \$3,000,000.

Penitentiaries Group

Until 1961 no major penal institution had been constructed during this century with the result that all institutions were overcrowded and substandard. In that year the Justice Department requested that Public Works undertake a long-range construction program. This program gradually has been enlarged and now calls for expenditures of more than \$70,000,000 by 1967 with an additional \$50,000,000 by 1972.

Because of the size and urgency of the program, the departments of Justice and Public Works adopted two policies: development of standard plans for each type of institution; and standardized methods of construction using precast concrete structure and wall panels.

Standard plans for medium-security institutions were completed in 1963. During 1964 construction of this type of institution was begun at Springhill, N.S., Warkworth, Ont. and Drumheller, Alta. These are valued at \$23,000,000.

During the year standard plans were completed for maximum security institutions and construction was ready to begin on the first one at Ste. Anne des Plaines, Que. Five will be constructed at a total estimated cost of \$40,000,000.

Plans for a special detention unit at St. Vincent de Paul were completed and construction later begun at a cost of \$2,300,000. Plans for three more special detention units were begun for Dorchester, N.B., Millhaven, Ont., and Prince Albert, Sask.

Their cost is expected to total \$3,500,000.

In addition to plans for new institutions, work also started on plans for additions and renovations to existing institutions.

Northern Construction Group

The work of this group covers a broad variety of building types such as schools for the Department of Northern Affairs, federal government housing, RCMP detachment units, seismograph vaults for the Mines Department, medical clinics and hospitals for the National Health and Welfare Department and continuing responsibility for Department of Veterans Affairs Hospitals.

Town planning studies were undertaken at Inuvik and Fort McPherson on behalf of the Northern Affairs department.

The RCMP standard detachment unit was re-designed on the basis of the results of a 1963 internal design competition. Another competition produced a new approach to the Indian and Eskimo school standard plans.

Construction was under way on the Charles Camsell hospital at Edmonton for the National Health and Welfare Department's Indian Health Services section. It provides 385 beds. The Saskatoon Veterans' Home was completed for the Department of Veterans Affairs. It provides 75 beds. Two new hospital projects were being planned to provide 40 and 672 beds respectively.

Special Projects Group

This group is responsible for buildings of national or international significance. Work progressed on the National Library and Archives Building scheduled for completion in 1966.

Construction began on the first phase of the Canadian Centre for the Performing Arts which will provide three auditoriums and a 900-car parking garage at Confederation Square in Ottawa.

Planning was near completion for the new National Museum which will form the southern closure of the Confederation Square plan.

The group, which also is responsible for Customs highway offices along the border with the United States, supervised completion of offices at Del Bonita, Alta. and Campobello, N.B.

Architectural services to the Department of External Affairs also were part of this group's responsibilities. The chancery building at Canberra, Australia, was completed and plans were under way for buildings in Brazil, West Germany, India, Italy, Pakistan, Poland and Turkey.

ACCOMMODATION SERVICES

	OPERATIONS			CAPITAL		
	Salaries and Other Pay-list Items	Repairs	Rents	Other	Total	Construction and Improvements
Newfoundland	1,021,970	208,101	37,195	431,367	1,698,633	731,506
Nova Scotia	613,728	196,921	236,003	457,336	1,503,988	1,273,446
Prince Edward Island	128,381	24,650	2,264	75,891	231,186	136,753
New Brunswick	465,987	120,350	80,293	382,432	1,049,062	879,531
Quebec	2,850,613	886,757	1,435,910	2,141,626	7,314,906	3,396,085
Ontario	11,568,434	3,379,959	5,899,675	8,879,661	29,727,729	19,408,108
Manitoba	2,711,531	434,491	199,101	3,103,078	6,448,201	629,469
Saskatchewan	594,340	201,979	128,109	546,940	1,471,368	289,004
Alberta	757,144	242,663	397,332	592,902	1,990,041	1,877,182
British Columbia	1,219,454	489,695	264,175	1,209,382	3,182,706	521,933
Northwest Territories	52,879	218,156	16,665	169,394	457,094	972,782
Yukon Territory	218	22,377	6,962	53,902	83,459	—
Outside of Canada	22,859	62,245	161,905	237,699	484,708	94,193
	22,007,538	6,488,344	8,865,589	18,281,610	55,643,081	30,209,992
* Includes \$20,228,324 operations and \$13,868,664 capital pertaining to the City of Ottawa.						
					1,506,857	1,225
					31,716,849	95,418
					87,359,930	580,126

HARBOURS AND RIVERS ENGINEERING SERVICES

	OPERATIONS			CAPITAL		
	Dredging	Repairs and Upkeep	Other	Total	Construction and Improvements	Equipment
Newfoundland	309,356	658,205	—	967,561	4,132,250	377,458
Nova Scotia	102,059	748,742	—	850,801	2,536,559	124
Prince Edward Island	305,444	255,299	—	560,743	421,935	36,504
New Brunswick	198,424	315,220	—	513,644	2,388,239	2,232
Quebec	315,852	958,937	317,198	1,592,007	5,390,418	38,367
Ontario	2,061	391,785	38,215	432,061	4,494,422	592
Manitoba	237,709	41,778	57,603	337,090	124,925	94,747
Saskatchewan	—	7,067	—	7,067	41,823	96,110
Alberta	264,035	40,633	—	304,668	6,456	—
British Columbia	758,777	370,043	253,090	1,381,910	2,952,444	40,501
Northwest Territories	2,493,717	3,787,729	666,106	6,947,552	22,568,609	686,635
					23,255,244	79,138
					30,202,796	4,374,855
					2,992,945	145,000
					311,124	6,456
					4,374,855	1,019,182
					2,904,115	2,387,484
					5,428,785	3,387,484
					4,927,075	5,477,269
					556,762	4,509,708
					137,933	2,536,683
					6,456	458,439
					2,390,471	1,019,182
					5,428,785	2,904,115
					4,927,075	7,020,792
					219,672	4,927,075
					137,933	556,762
					145,000	1,019,182
					6,456	3,387,484
					2,992,945	5,477,269
					79,138	4,374,855
					23,255,244	30,202,796

ROADS AND BRIDGES ENGINEERING SERVICES

	OPERATIONS Salaries and Other Pay- list Items	CAPITAL				Trans-Canada Highway Contributions	TOTAL
		Repairs	Other	Total	Construction	Equipment	
Newfoundland	—	—	—	—	1,067	—	22,765,152
Nova Scotia	—	—	—	—	5,450	—	4,714,202
Prince Edward Island	—	—	—	—	24,758	—	1,107,934
New Brunswick	—	1,319	424	1,743	1,239,077	—	8,046,358
Quebec	—	68,653	617	69,270	464,881	78	32,048,994
Ontario	74,380	135,883	18,964	229,227	538,830	252	3,689,809
Manitoba	75	65	64	204	—	—	208,581
Saskatchewan	—	—	—	—	—	—	38,624
Alberta	—	—	—	—	66,421	—	95,768
British Columbia	—	—	—	—	259,396	—	3,369,690
Northwest Territories	4,068,509	1,326,405	2,875,306	8,270,220	207,880	211,618	8,689,718
Yukon Territory	—	—	—	—	916	—	916
	4,142,964	1,532,325	2,895,375	8,570,664	2,808,676	211,948	76,085,112
							87,676,400

MISCELLANEOUS

	OPERATIONS	CAPITAL				TOTAL
		Salaries and Other Pay- list Items	Other	Total	Buildings, Works, Lands, etc.	
Minister's Salary and Motor Car Allowance	—	16,848	—	16,848	—	16,848
General Administration	—	10,622,895	1,518,237	12,141,132	—	12,304,047
Testing Laboratories	—	755,796	237,576	993,372	—	1,043,125
Ice Control Structure	—	—	—	—	5,803,679	5,803,679
Payment to Canadian Vickers Limited	—	—	90,000	90,000	—	90,000
Exchequer Court Awards	—	—	6,597	6,597	—	6,597
Gratuities to Families of Deceased Employees	—	—	3,810	3,810	—	3,810
Refunds of Amounts credited to Revenue in Previous Years	—	—	3,120	3,120	—	3,120
	11,395,539	1,859,340	—	13,254,879	5,803,679	19,271,226
					6,016,347	

REVENUE RECEIVED BY THE DEPARTMENT OF PUBLIC WORKS DURING THE FISCAL YEAR ENDING MARCH 31, 1965

ACCOMMODATION SERVICES

ORDINARY

Rents from Public Buildings and related properties	\$ 2,450,101.35
Sales of old furniture, fittings and building material, etc.	412.00
Sales of real estate	81,101.00
Commissions from telephone booths in public buildings	26,195.48
Refunds of Previous Years' Expenditures	102,784.37
Quarters and Rations	263,584.80
Laundry Services	33,729.02
	<hr/>
	\$ 2,957,908.02

ENGINEERING WORKS

Sales of real estate	\$ 34,955.35
Earnings of Dry Docks, etc. —	
Champlain Dry Dock, Lauzon, Que.	225,469.75
Lorne Dry Dock, Lauzon, Que.	51,255.25
Selkirk, Man., Repair Slip	3,424.96
Esquimalt, B.C., New Dry Dock	185,814.95
	<hr/>
	\$ 500,920.26
Revenue from leased works and plants —	
Kingston, Ont., Dry Dock, Rental	\$ 12,100.00
Ferry privileges	351.00
Earnings of dredges and plants	64,887.57
	<hr/>
	\$ 77,338.57
Rents from water lots, etc.	\$ 62,287.35
Refunds of Previous Years' Expenditures	547,892.52
Sundry receipts	3,584.39
	<hr/>
	\$ 1,192,023.09

MISCELLANEOUS

Damages to government property	\$ 9,516.03
Sundry receipts	454,559.82
	<hr/>
	\$ 464,075.85

GENERAL SUMMARY

Accommodation Services	\$ 2,957,908.02
Engineering Works	1,192,023.09
Miscellaneous	464,075.85
	<hr/>
	\$ 4,614,006.96

REVENUE RECEIVED BY THE DEPARTMENT OF PUBLIC WORKS DURING THE FISCAL YEAR ENDING MARCH 31, 1965

(CONCLUDED)

The revenue for the year amounted to \$4,614,006.96 and was made up as follows:

Graving Docks	\$ 465,964.91
Rents	2,589,376.27
Casual Revenue	1,558,314.78
Ferries	351.00
	<hr/>
	\$ 4,614,006.96

A breakdown of the above revenue follows:

Graving Docks — Maintenance and Operation

Champlain Graving Dock	\$ 225,469.75
Lorne Graving Dock, Lauzon, Que.	51,255.25
Selkirk, Man. — Repair Slip	3,424.96
Esquimalt, B.C. — Graving Dock	185,814.95
	<hr/>
	\$ 465,964.91

Rents

Public Buildings	\$ 2,450,101.35
Water lots	62,287.35
Kingston Dry Dock	12,100.00
Earnings of the Dredges	64,887.57
	<hr/>
	\$ 2,589,376.27

Casual Revenue

Sales of old furniture, etc.	\$ 412.00
Sales of real estate — Buildings	81,101.00
Commission from telephones in Public Buildings	26,195.48
Refunds of Previous Years' Expenditures —	
Public Buildings	102,784.37
Engineering	547,892.52
Sundry receipts — Engineering	3,584.39
Damages to Government property	9,516.03
Sundry receipts — Miscellaneous	454,559.82
Sales of real estate — Engineering	34,955.35
Quarters and Rations	263,584.80
Laundry Services	33,729.02
	<hr/>
	\$ 1,558,314.78

Ferries

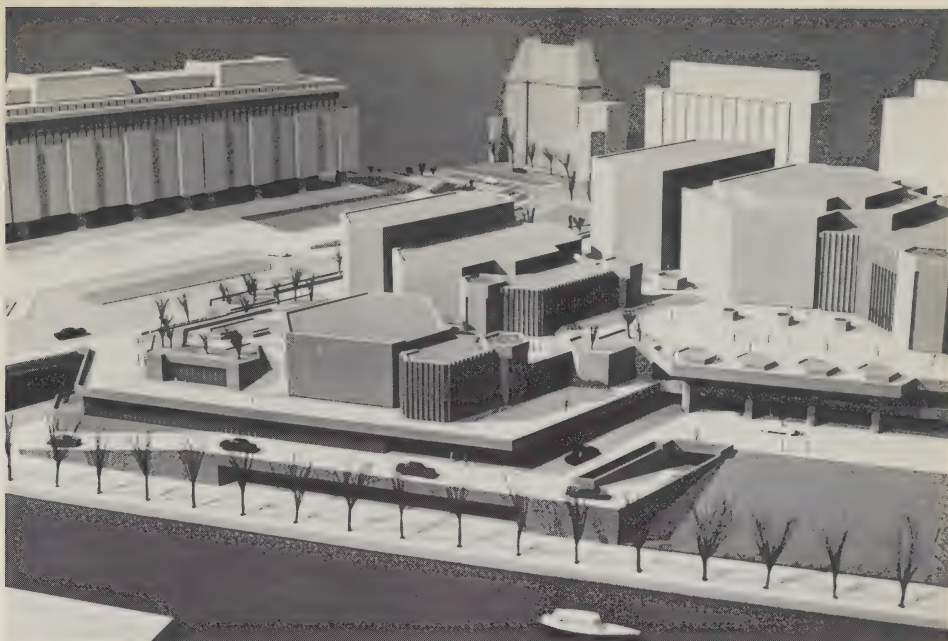
Licence fees	\$ 351.00	
	<hr/>	\$ 4,614,006.96

EXPENDITURES MADE UNDER ENCUMBRANCES FROM OTHER DEPARTMENTS,
BUT NOT REPORTED IN THE PUBLIC WORKS SECTION OF THE
PUBLIC ACCOUNTS

Building Construction	\$22,694,697.93	
Property and Building Management	1,702,465.05	
Purchasing and Stores	90,729.37	
		\$24,487,892.35
Harbors and Rivers Engineering	\$ 3,573,030.04	
Development Engineering	7,215,623.13	
		\$10,788,653.17
TOTAL		\$35,276,545.52

STATEMENT OF FERRY LICENCES IN FORCE DURING
THE FISCAL YEAR ENDING MARCH 31, 1965

Clarence, Ontario — Thurso, P.Q.	\$ 20.00
Corunna, Stag Island, Ontario — Marysville, Michigan	25.00
Courtright, Ontario — St. Clair, Michigan	25.00
Cumberland, Ontario — Masson, P.Q.	10.00
Fitzroy Harbour, Ontario — Quyon, P.Q.	125.00
Kingsville, Leamington, Pelee Island, Ontario — Sandusky, Ohio	25.00
Lefavre, Ontario — Notre Dame du Bon Secours, P.Q.	30.00
Montebello, Quebec — Alfred, Ontario	\$ 15.00
Niagara Falls, Ontario — Niagara Falls, New York	25.00
Niagara-on-the-Lake, Ontario — Youngstown, New York	25.00
Port Lambton, Ontario — Roberts Landing, Michigan	25.00
Rockcliffe, Ontario — Gatineau Point, P.Q.	25.00
Sombra, Ontario — Marine City, Michigan	1.00
Walpole Island, Ontario — Algonac, Michigan	25.00



An architect's model of the Canadian Centre for the Performing Arts and the proposed National Museum (upper left) gives a preview of how the area adjacent to Parliament Hill and the Rideau Canal in Ottawa will appear when both projects are completed. Excavation for the 900-car parking garage beneath the Arts Centre began during the fiscal year.

Maquette architecturale du Centre national des arts et du Musée national projeté (en haut, à gauche) donnant une idée de l'aspect qu'auront les environs de la colline du Parlement et du canal Rideau, à Ottawa, une fois que les deux projets seront terminés. L'excavation pour le garage de stationnement abritant 900 automobiles sous le Centre des arts a été commencée au cours de l'année financière.



The final 63-foot gap in the superstructure of the Macdonald-Cartier bridge between Ottawa and Hull, Que., was closed September 8, 1964, when the 62-ton girder shown above was lowered into place.

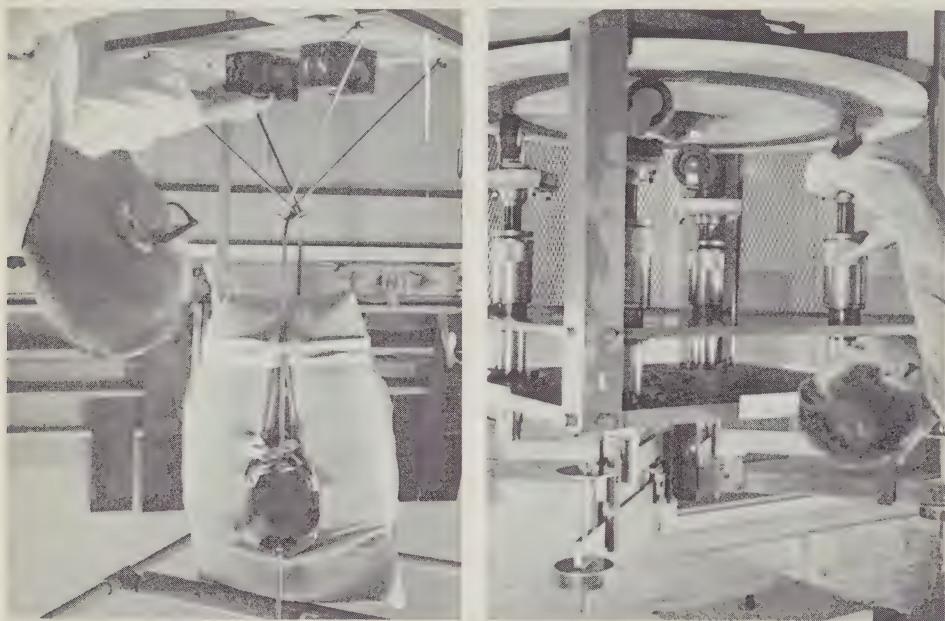
Le 8 septembre 1964, on a posé la dernière travée du pont Macdonald-Cartier entre Hull et Ottawa; sur la photo, on voit la mise en place de cette travée de 63 pieds et d'un poids de 62 tonnes.



Work progressed during the year on the ice control structure in the St. Lawrence River upstream from the Montreal site of Expo '67. The photographs shown here were taken three months apart. The \$13,000,000 structure has 72 piers spanning 8,500 feet across the river.



Durant l'année, on a poursuivi les travaux de l'ouvrage de retenue des glaces sur le fleuve Saint-Laurent en amont de l'emplacement de l'Expo 67, à Montréal. Ces photos ont été prises à trois mois d'intervalle. Cet ouvrage de \$13 millions comporte 72 piliers posés sur une distance de 8,500 pieds à travers du fleuve.

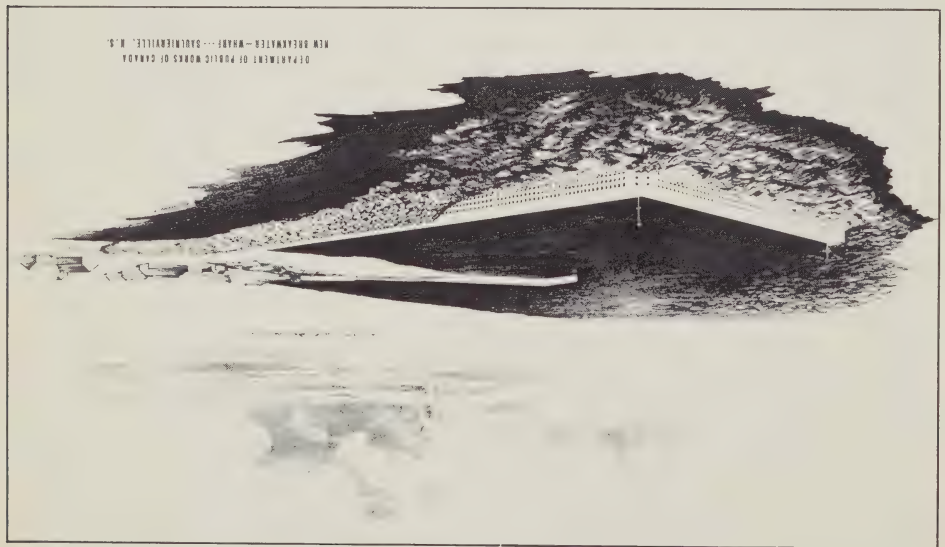


The tests shown here are typical of thousands performed annually by the Department's Testing Laboratory. The specially-designed apparatus shown left is for testing casters. The lifejacket on the right is undergoing tests to determine the strength of construction.

Les épreuves illustrées ici sont caractéristiques de milliers d'épreuves faites chaque année dans les laboratoires d'essais du Ministère. L'appareillage à gauche est spécialement conçu pour faire des essais sur des roulettes. À droite, une ceinture de sauvetage subit des essais qui en détermineront la résistance.

The harbor development at Saunierville, N.S., illustrates a unique perforated concrete-crib type of breakwater designed to absorb and reduce the strength of the waves.

L'aménagement portuaire à Saunierville (N.-E.) comporte un brise-lames avant-gardiste à cages en béton trouées, conçu pour absorber et diminuer la force des vagues.



DEPARTMENT OF PUBLIC WORKS OF CANADA
NEW BRUNSWICK—SAUNIERVILLE, N.S.

Suit la ventilation des recettes ci-dessus:
Bassins de radoub — Entretien et exploitation

Bassin de radoub Champlain	\$ 225,469.75
Bassin de radoub Lorne, Lauzon (P.Q.)	51,255.25
Cale de radoub de Selkirk (Man.)	3,424.96
Bassin de radoub d'Esquimalt (C.-B.)	185,814.95
\$	465,964.91

Edifices publics	\$ 2,450,101.35
Lois rivaux	62,287.35
Bassin de radoub de Kingston	12,100.00
Recettes des dragues	64,887.57
\$	2,589,376.27

Recettes imprévues

Ventes de vieux meubles, etc.	\$ 412.00
Commissions provenant de téléphones dans les edifices publics	81,101.00
Remboursement de dépenses d'années précédentes — Edifices publics	26,195.48
Remboursement de dépenses d'années précédentes —	102,784.37
Génie	547,892.52
Recettes diverses — Génie	3,584.39
Domages causés à des propriétés de l'Etat	9,516.03
Recettes diverses de services divers	454,559.82
Ventes d'immeubles — Génie	34,955.35
Logement et vivres	263,584.80
Services de buanderie	33,729.02

\$	1,558,314.78
Droits de permis	\$ 351.00
\$	4,614,006.96

DÉBOURSÉS EFFECTUÉS EN VERTU, DE CHARGES IMPUTÉES À D'AUTRES
MINISTÈRES, MAIS NON RAPPORTÉS AUX COMPTES DES TRAVAUX PUBLICS
DANS LES COMPTES PUBLICS

Construction d'édifices	\$22,694,697.93
Gestion des immeubles	1,702,465.05
Achats et approvisionnements	90,729.37
\$	24,487,892.35

Génie (ports et rivières)	\$ 3,573,030.04
Génie (aménagement)	7,215,623.13
\$	10,708,653.17

Total

\$35,276,545.52

LISTE DES PERMIS DE PASSAGE D'EAU EN VIGUEUR
PENDANT L'EXERCICE TERMINÉ LE 31 MARS 1965

Clarence (Ont.) — Thurso (P.Q.)	\$ 20.00
Corunna, île Stag (Ont.) — Marysville (Mich.)	25.00
Courtright (Ont.) — St. Clair (Mich.)	25.00
Cumberland (Ont.) — Masson (P.Q.)	10.00
Fitzroy Harbour (Ont.) — Quyon (P.Q.)	125.00
Kingsville, Leamington, île Pelée (Ont.) — Sandusky (Ohio)	25.00
Lefaire (Ont.) — Notre-Dame-du-Bon-Secours (P.Q.)	30.00
Montebello (P.Q.) — Alfred (Ont.)	15.00
Niagara Falls (Ont.) — Niagara Falls (N.Y.)	25.00
Niagara-on-the-Lake (Ont.) — Youngstown (N.Y.)	25.00
Port Lambton (Ont.) — Roberts Landing (Mich.)	25.00
Rockcliffe (Ont.) — Pointe-Catneau (P.Q.)	25.00
Sombra (Ont.) — Marine City (Mich.)	1.00
Walpole Island (Ont.) — Algonac (Mich.)	25.00

RECETTES DU MINISTÈRE DES TRAVAUX PUBLICS
AU COURS DE L'EXERCICE TERMINÉ LE 31 MARS 1965

SERVICES DU LOGEMENT

RECETTES ORDINAIRES

\$ 2,450,101.35	Loyers d'édifices publics et de propriétés attenantes
412.00	Ventes d'immeubles
81,101.00	Ventes de vieux meubles, accessoires, matériaux de construction, etc.
102,784.37	Commissions provenant de téléphones publics dans les édifices publics
26,195.48	Remboursement de dépenses d'années précédentes
263,584.80	Logement et vivres
33,729.02	Services de buanderie
\$ 2,957,908.02	

TRAVAUX DE GÉNIE

\$ 34,955.35	Ventes d'immeubles
225,469.75	Recettes provenant de bassins de radoub, etc.
51,255.25	Bassin de radoub Champlain, Lauzon (P.Q.)
3,424.96	Bassin de radoub Lorne, Lauzon (P.Q.)
185,814.95	Cale de radoub de Selkirk (Man.)
	Nouveau bassin de radoub d'Esquimalt (C.-B.)
\$ 500,920.26	Recettes provenant de location d'ouvrages et d'outillage —
	Location du bassin de radoub de Kingston (Ont.)
12,100.00	Permis de passages d'eau
351.00	Location de dragues et d'outillage
64,887.57	
\$ 77,338.57	Loyers de lots, rivières, etc.
62,287.35	Remboursement de dépenses d'années précédentes
547,892.52	Recettes diverses
3,584.39	
\$ 1,192,023.09	DIVERS

Domages causés à des propriétés de l'Etat

\$ 9,516.03	Recettes diverses
454,559.82	
\$ 464,075.85	RÉCAPITULATION

\$ 2,957,908.02	Services du logement
1,192,023.09	Travaux de génie
464,075.85	Divers

\$ 4,614,006.96

RECETTES DU MINISTÈRE DES TRAVAUX PUBLICS
AU COURS DE L'EXERCICE TERMINÉ LE 31 MARS 1965

RECETTES DE 1964-1965

Les recettes de l'année s'élèvent à \$4,614,006.96 et se répartissent comme il suit:

\$ 465,964.91	Bassins de radoub
2,589,376.27	Loyers
1,558,314.78	Recettes imprévues
351.00	Passages d'eau
\$ 4,614,006.96	

SERVICES DU GÉNIE (PONTS ET CHAUSSEES)

	EXPLOITATION			IMMOBILISATIONS		
	Appointements et autres postes de feuilles de paie	Réparations	Autres déboursés	Total	Construction	Matériel
Terre-Neuve	—	—	—	—	1,067	—
Nouvelle-Ecosse	—	—	—	—	5,450	—
Ile du Prince-Edouard	—	—	—	—	24,758	—
Nouveau-Brunswick	—	1,319	—	—	1,239,077	—
Québec	—	68,653	424	—	464,881	—
Ontario	74,380	135,883	617	—	538,850	78
Manitoba	75	65	18,964	229,227	—	252
Saskatchewan	—	—	64	204	—	—
Alberta	—	—	—	—	66,421	—
Colombie-Britannique	—	—	—	—	259,396	—
Territoires du Nord-Ouest	4,068,509	1,326,405	2,875,306	8,270,220	207,880	211,618
Territoire du Yukon	4,142,964	1,532,325	2,895,375	8,570,664	916	—
					2,808,676	211,948
						3,020,624
						76,085,112
						87,676,400

	EXPLOITATION			DIVERS		
	Appointements et autres postes de feuilles de paie	Réparations	Autres déboursés	Total	Construction	Matériel
Traitement du ministre et allocation pour automobile	16,848	—	—	16,848	—	—
Administration générale	10,622,895	—	1,518,237	12,141,132	162,915	—
Laboratoires d'essais	755,796	—	237,576	993,372	49,753	—
Ouvrage de retenue des glaces	—	—	—	—	—	—
Paie à la Canadian Vickers Limited	—	—	90,000	90,000	—	—
Décisions de la cour de l'Echiquier	—	—	6,597	6,597	—	—
Gratifications aux familles de fonctionnaires décédés	—	—	3,810	3,810	—	—
Remboursement de montants crédits aux recettes au cours d'années précédentes	11,395,539	—	3,120	13,254,879	212,668	—
						5,803,679
						6,016,347
						19,271,226

SERVICES DU LOGEMENT

IMMOBILISATIONS

EXPLOITATION

Appointements et autres postes de

feuillets de paie

Réparations

Loyers

Autres déboursés

Total

Construction et améliorations

Matériel

Total

Total

Terre-Neuve	1,021,970	208,101	37,195	431,367	1,698,633	731,506	8,369	739,875	2,438,508
Nouvelle-Écosse	613,728	196,921	236,003	457,336	1,503,988	1,273,446	23,501	1,296,947	2,800,935
Île du Prince-Édouard	128,381	24,650	2,264	75,891	231,186	136,753	925	137,678	368,864
Nouveau-Brunswick	465,987	120,350	80,293	382,432	1,049,062	879,531	20,300	899,831	1,948,893
Québec	2,850,613	886,757	1,435,910	2,141,626	7,314,906	3,396,085	120,648	3,516,733	10,831,639
Ontario	11,568,434	3,379,959	5,899,675	8,879,661	29,727,729	19,408,108	894,943	20,303,051	50,030,780*
Manitoba	2,711,531	434,491	199,101	3,103,078	6,448,201	629,469	68,371	697,840	7,146,041
Saskatchewan	594,340	201,979	128,109	546,940	1,471,368	289,004	20,477	309,481	1,780,849
Alberta	757,144	242,663	397,332	592,902	1,990,041	1,877,182	22,946	1,900,128	3,890,169
Colombie-Britannique	1,219,454	489,695	264,175	1,209,382	3,182,706	521,933	42,578	564,511	3,747,217
Territoires du Nord-Ouest	52,879	218,156	16,665	169,394	457,094	972,782	280,143	1,252,925	1,710,019
Territoire du Yukon	218	22,377	6,962	53,902	83,459	—	2,431	2,431	85,890
En dehors du Canada	22,859	62,245	161,905	237,699	484,708	94,193	1,225	95,418	580,126
	22,007,538	6,488,344	8,865,589	18,281,610	55,643,081	30,209,992	1,506,857	31,716,849	87,359,930

* Comprend \$20,228,324 pour exploitation et \$13,868,664 pour immobilisations se rapportant à la ville d'Ottawa.

SERVICES DU GÉNIE (PORTS ET RIVIÈRES)

EXPLOITATION

Dragage

Réparations et entretien

Autres déboursés

Total

Construction et améliorations

Matériel

Total

Total

Terre-Neuve	309,356	658,205	—	967,561	4,132,250	377,458	4,509,708	5,477,269
Nouvelle-Écosse	102,059	748,742	—	850,801	2,536,559	124	2,536,683	3,387,484
Île du Prince-Édouard	305,444	255,299	—	560,743	421,935	36,504	458,439	1,019,182
Nouveau-Brunswick	198,424	315,220	—	513,644	2,388,239	2,232	2,390,471	2,904,115
Québec	315,852	958,957	317,198	1,592,007	5,390,418	38,367	5,428,785	7,020,792
Ontario	2,061	391,785	38,215	432,061	4,494,422	592	4,495,014	4,927,075
Manitoba	237,709	41,778	57,603	337,090	124,925	94,747	219,672	556,762
Saskatchewan	—	7,067	—	7,067	41,823	96,110	137,933	145,000
Alberta	264,035	40,633	—	304,668	6,456	—	6,456	311,124
Colombie-Britannique	758,777	370,043	253,090	1,381,910	2,952,444	40,501	2,992,945	4,374,855
Territoires du Nord-Ouest	2,493,717	3,787,729	666,106	6,947,552	22,568,609	—	23,255,244	30,202,796

tels que les écoles pour le ministère du Nord canadien, les habitations du gouvernement fédéral, les unités des détachements de la GRC, les postes sismiques souterrains pour le ministère des Mines, les hôpitaux et les cliniques médicales pour le ministère de la Santé nationale et du Bien-être social. Le groupe a continué de s'occuper des hôpitaux du ministère des Affaires des anciens combattants.

Il a entrepris des études relatives à la planification urbaine, à Inuvik et à Fort McPherson, pour le compte du ministère du Nord canadien.

L'unité réglementaire de détachement de la GRC a été conçue à nouveau à la suite des résultats d'un concours international tenu en 1963. Un autre concours a mis en évidence une nouvelle conception des plans réglementaires pour les écoles des Indiens et des Eskimos.

A Edmonton, les travaux continuaient à l'hôpital Charles Camseil, institution de 385 lits construite pour le compte de la Direction des services de santé des Indiens du ministère de la Santé nationale et du Bien-être social. On a aussi complété, à Saskatoon le Foyer de 75 lits des anciens combattants pour le compte du ministère des Affaires des anciens combattants. Deux nouveaux projets d'hôpitaux sont en voie de préparation; ils auront 40 et 672 lits respectivement.

Groupe des projets spéciaux

Ce groupe est chargé des édifices d'importance nationale ou internationale. On a poursuivi la construction de l'édifice de la Bibliothèque et des Archives nationales qui doit être complété en 1966.

On a commencé les travaux de la première phase du Centre canadien des arts d'automobiles, à la Place de la Confédération à Ottawa.

Était presque terminée la planification du nouveau Musée national qui formera l'extrémité sud du complexe de la Place de la Confédération.

Vu sa responsabilité pour les bureaux des douanes situés sur les routes en bordure de la frontière canado-américaine, le groupe s'est chargé de la surveillance des travaux de finition des bureaux à Del Bonita (Alb.) et Campobello (N.-B.).

Ce groupe a aussi assuré les services architecturaux au ministère des Affaires extérieures. Il a complété la construction de l'édifice de la chancellerie, à Canberra en Australie, et commencé les plans des édifices qui seront érigés au Brésil, en Allemagne de l'Ouest, en Inde, en Italie, au Pakistan, en Pologne et en Turquie.

Direction de la gestion des immeubles du Ministère. Parmi ces projets, on compte les nouveaux ascenseurs dans l'édifice du Centre, sur la colline du Parlement, les réparations au toit et les améliorations au système de chauffage de la résidence du Gouverneur général, de même que l'aménagement et la décoration intérieure des nouveaux locaux loués aux fins des ministères du Nord canadien et des Ressources nationales, du Travail, des Forêts et du Secrétariat d'Etat.

Groupe des laboratoires

Ce groupe était chargé de la planification et de la construction de laboratoires pour le Conseil national des recherches, le Conseil de recherches sur les pêcheries, ainsi que les ministères de l'Agriculture, des Pêcheries, des Forêts, des Mines et des Relevés techniques et de la Santé nationale et du Bien-être social.

Parmi les projets variés, mentionnons l'observatoire de la Reine Elisabeth, à Mount Kobau (C.-B.), au coût de plusieurs millions de dollars, ainsi que le tunnel aérodynamique pour l'Établissement national d'aéronautique, à Uplands (Ont.), au coût de 5 millions. Parmi les projets-types complétés au cours de l'année, on a dépensé \$2,399,000 pour le Laboratoire de recherches forestières, à Victoria (B.-C.), \$2,515,600 pour le Laboratoire de recherches agricoles, à Swift Current (Sask.) et \$404,654 pour la Station arctique de biologie, à Sainte-Anne-de-Bellevue pour le compte du Conseil de recherches sur les pêcheries.

Parmi les projets encore en voie d'exécution à la fin de l'année, on compte le laboratoire de l'unité d'évaluation du milieu du ministère de la Santé, à Ottawa, contrat de \$2,672,030, ainsi que les rajouts et modifications à l'Institut de recherches sur le papier et la pâte à papier, à Pointe-Claire, projet de 3 millions.

Groupe des pénitenciers

Depuis le début du siècle présent jusqu'à 1961, aucune institution pénitentiaire n'a été construite, d'où les pénitenciers surpeuplés et inférieurs au niveau moyen. Cette année-là, le Ministère de la Justice a demandé au ministère des Travaux publics d'entreprendre un vaste programme de construction. Étendu graduellement, ce programme prévoit maintenant des déboursés de plus de 70 millions de dollars jusqu'en 1967, plus une autre somme de 50 millions jusqu'en 1972.

Vu l'ampleur et la priorité du programme, les ministères de la Justice et des Travaux publics ont adopté deux lignes de conduite: l'élaboration de plans réglementaires pour chaque genre d'institutions, et des méthodes réglementaires de construction visant à l'utilisation de charpentes en béton précontraint et de panneaux muraux. C'est en 1963 qu'on a complété les plans-types pour les institutions à sécurité moyenne. Au cours de 1964, on a commencé à construire ce genre d'institution à Springhill (N.-E.), Warkworth (Ont.) et Drumheller (Alb.). Ces projets sont estimés à 23 millions de dollars.

Pendant la même période, on a mis la dernière main aux plans-types d'institutions à sécurité maximum, et les travaux étaient sur le point de commencer à Sainte-Anne-des-Plaines (P.Q.), emplacement de la première institution de ce genre. On en a complété les plans d'un bâtiment spécial de détention à Saint-Vincent-de-Paul et les travaux, estimés à \$2,300,000, ont commencé peu après. On s'est aussi mis à la tâche pour préparer les plans de trois autres bâtiments spéciaux de détention qui seront érigés à Dorchester (N.-B.), Millhaven (Ont.) et Prince-Albert (Sask.)

En plus des plans des nouvelles institutions, on a également commencé à tracer ceux qui se rapportent aux rajouts et aux améliorations des pénitenciers existants.

Groupe de la construction dans la région du Nord

Les travaux de ce groupe comprennent une grande variété de modèles d'édifices

A l'administration centrale, un groupe d'experts en construction d'édifices à bureaux de plusieurs étages est venu s'ajouter à ceux qui se spécialisaient déjà dans la construction d'immeubles à bureaux, laboratoires, pénitenciers, projets spéciaux ou bâtiments dans les régions septentrionales. Ces groupes forment l'organisme de gestion, de la détermination des exigences relatives aux projets et de l'examen des critères spéciaux de la conception.

Sept sections régionales sont chargées de la préparation des plans et devis, de la surveillance et de la préparation des rapports sur la marche des travaux et du contrôle de la qualité à l'égard des matériaux employés dans l'exécution des contrats en cours. En plus des sept sections chargées de la conception, il y a trois bureaux régionaux situés de façon à assurer un meilleur service sur place. Au cours de l'année, un ingénieur mécanicien et un ingénieur électricien ont été affectés à chaque bureau régional afin de préparer sur place les plans et devis.

La Direction a aussi ajouté deux nouvelles disciplines à ses services consultatifs spécialisés; la planification urbaine et la décoration intérieure. Les autres services sont la mécanique, l'électricité, la construction, les devis et la préparation de plans réglementaires.

Nous avons publié les premiers résultats d'un programme pratique de recherche appliquée en vue de définir et de formuler des critères de construction plus spécifiques pour les six catégories d'édifices spéciaux. La Direction s'occupe activement de la préparation du nouveau manuel de normes de la Direction de la construction des édifices dont les bureaux régionaux se serviront comme source de références dans le domaine des critères. Vu le succès marqué des concours de personnel tenus l'année précédente dans le domaine de la conception, de nouveaux concours ont eu lieu à la Direction en 1964 pour les plans-types d'édifices. Il s'agissait de plans pour les bureaux de poste réglementaires SP12 et pour les écoles des Indiens et des Eskimos du Nord. On est en train d'élaborer les plans qui ont mérité la palme, car ils remplaceraient les plans réglementaires existants.

On a nommé les premiers lauréats du trophée offert par le ministre des Travaux publics dans le domaine de la conception architecturale. Il s'agit là d'un programme mis en oeuvre pour reconnaître les réalisations éminentes dans la conception des immeubles faits par des architectes-conseils pour le compte du gouvernement fédéral. On a choisi quatre gagnants parmi ceux qui ont exécuté des travaux depuis 1961 à 1964.

Voici un résumé des programmes entrepris par les groupes experts:

Groupe de la construction d'immeubles à bureaux

Ce groupe était chargé de la conception et de la construction de locaux à bureaux pour les ministères du Travail, du Revenu national et des Postes, pour la Commission de l'assurance-chômage, de même que des édifices exploités par la Direction de la gestion des immeubles du ministère des Travaux publics.

Nous avons entrepris avec succès un programme des travaux d'hiver en nous servant d'un plan amélioré pour les petits bureaux de poste à commission; 176 ont été construits au coût moyen de \$15,000. De plus, nous avons érigé 39 bureaux de poste de nouveau modèle SP8 au coût moyen de \$25,000 chacun.

Soixante-dix-neuf projets étaient en voie de planification ou de construction, y compris des petits immeubles fédéraux d'une valeur de \$30,000 ainsi que le nouveau terminus postal, à Edmonton, au coût de \$6,503,169.

Pour le compte de l'Organisation des mesures d'urgence, le groupe a continué à élaborer les plans de locaux protégés; il s'agit là de projets qui seront exécutés dans tout le pays.

Un autre des responsabilités du groupe a été la planification et l'exécution des travaux de modification et d'amélioration aux édifices du MTP, tel que requis par la

DIRECTION DE LA CONSTRUCTION
DES ÉDIFICES

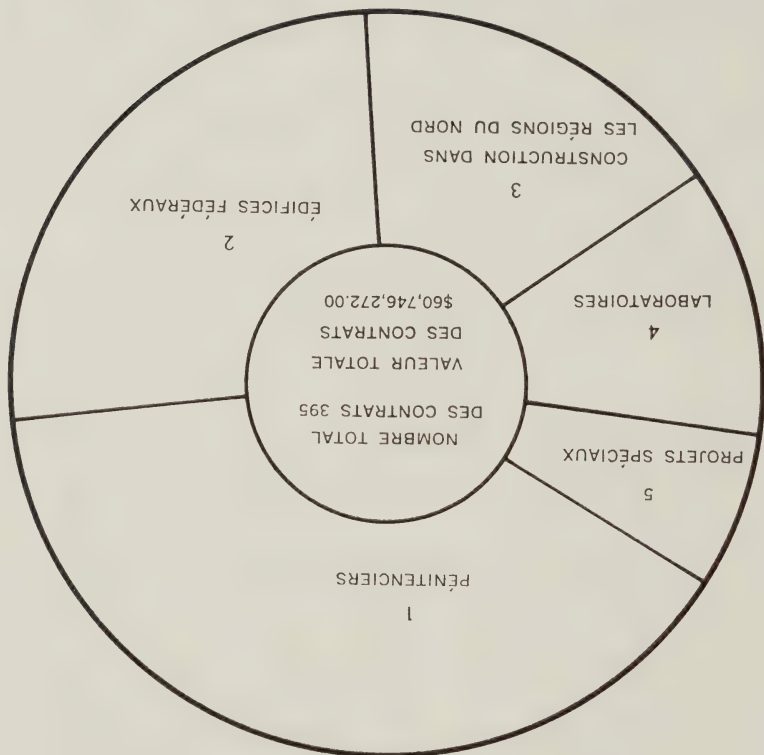
GRAPHIQUE INDICANT LE NOMBRE DE CONTRATS ADJUGÉS POUR LE COMPTE DE CHACUN DES MINISTÈRES, ET LE POURCENTAGE QUE CES CONTRATS REPRÉSENTENT PAR RAPPORT À LA SOMME DE \$60,746,272.00 MONTANT DE LA VALEUR TOTALE BRUTE DES CONTRATS AU TITRE DU PROGRAMME DE L'EXERCICE 1964-1965



NO	MINISTÈRE	NOMBRE DE CONTRATS	POURCENTAGE DE LA VALEUR TOTALE
1	JUSTICE	44	43.25 %
2	TRAVAUX PUBLICS	297	32.43 %
3	SANTÉ NATIONALE ET BIEN-ÊTRE SOCIAL	8	11.59 %
4	AGRICULTURE	13	4.69 %
5	CONSEIL PRIVÉ	2	2.21 %
6	FORÊTS	3	1.64 %
7	TRANSPORTS	5	1.31 %
8	CITOYENNETÉ ET IMMIGRATION	5	0.86 %
9	PÊCHERIES	5	0.83 %
10	CONSEIL NATIONAL DE RECHERCHES	2	0.51 %
11	AFFAIRES DES ANCIENS COMBATTANTS	2	0.34 %
12	MINES ET RELEVÉS TECHNIQUES	6	0.19 %
13	DÉFENSE NATIONALE	1	0.08 %
14	REVENU NATIONAL	2	0.07 %
	TOTAL	395	\$ 60,746,272.00

DIRECTION DE LA CONSTRUCTION DES ÉDIFICES

PROGRAMME DE L'EXERCICE 1964-1965
GRAPHIQUE INDICANT LE NOMBRE ET LA VALEUR TOTALE DES
CONTRATS ADJUGÉS DANS LE CADRE DES CINQ CATÉGORIES PRIN-
CIPALES DE CONSTRUCTION



CATÉGORIES DE CONTRATS	NOMBRE DE CONTRATS	POURCENTAGE DE LA VALEUR TOTALE
PÉNITENCIERS	17	40.97 %
ÉDIFICES FÉDÉRAUX	290	26.08 %
CONSTRUCTION DANS LES RÉGIONS DU NORD	45	16.42 %
LABORATOIRES	31	10.81 %
PROJETS SPÉCIAUX	12	5.72 %
TOTAL	395	100 %

DIRECTION DE LA CONSTRUCTION DES ÉDIFICES

RÉCAPITULATION

PÉRIODE DE CINQ ANS																		
EXERCICES	MILLIONS DE DOLLARS													NOMBRE DE CONTRATS			VALEUR BRUTE DES CONTRATS	
	5	10	15	20	25	30	35	40	45	50	55	60	65	M.T.P.	MIN. CLIENTS	TOTAL		
1960 - 61														187	83	270	\$ 31,440,435	
1961 - 62														145	79	224	\$ 33,174,298	
1962 - 63														135	51	186	\$ 33,363,195	
1963 - 64														206	83	289	\$ 54,859,078	
1964 - 65														297	98	395	\$ 60,746,272	

CORRESPOND AUX SOMMES VERSÉES PAR LE MINISTÈRE DES TRAVAUX PUBLICS
 CORRESPOND AUX SOMMES VERSÉES PAR LES AUTRES MINISTÈRES DU GOUVERNEMENT

Essais sur isolants thermiques contre les hautes températures — Pour le compte de la Marine Royale du Canada, les laboratoires ont commencé des essais pour déterminer la qualité des matériaux thermiques isolants contre les hautes températures. Afin que les techniciens soient certains que les résultats sont exacts, ils doivent avoir recours à des méthodes et à de l'équipement certains que les résultats sont exacts, ils doivent avoir détail. Le genre de matériaux mis à l'épreuve sont ceux dont on se sert comme isolants thermiques pour les chaudières et les tuyaux à vapeur.

Emplacement du Musée national — Au cours des travaux de reconnaissance des terrains en profondeur, à l'emplacement du nouveau Musée national, on a fait une découverte intéressante: l'édifice de six étages reposerait sur de la glaise. L'emplacement de l'édifice a depuis été changé.

Voie maritime Richelieu-Champlain — On a utilisé des procédés sismiques afin de compléter les données obtenues à la suite de forages d'essais le long du tracé projeté de la voie maritime. Le recours à cette nouvelle technique a permis de réduire considérablement le nombre de forages qui auraient autrement été requis pour obtenir le même nombre de données.

Ceintures de sécurité pour voitures — On est en train de poursuivre des recherches approfondies pour obtenir des renseignements sur le vieillissement des sangles de ceintures de sécurité employées à l'heure actuelle. Ce qui nous intéresse particulièrement, ce sont les effets possibles de plusieurs années d'usage dans les automobiles sur les propriétés de résistance des sangles. Le Corps d'aviation royal canadien coopère étroitement avec nous dans ce domaine en nous fournissant les ceintures de sécurité qui ont servi dans ses véhicules.

L'année a été marquée par un nombre élevé de recherches poursuivies dans toutes les divisions des laboratoires. On a continué plusieurs projets commencés l'année précédente et des recherches dans d'autres domaines sont maintenant au stade initial. Les graphiques ci-dessous ont été préparés afin de mieux faire comprendre les activités des laboratoires au cours de l'année.

DIRECTION DE LA CONSTRUCTION DES EDIFICES

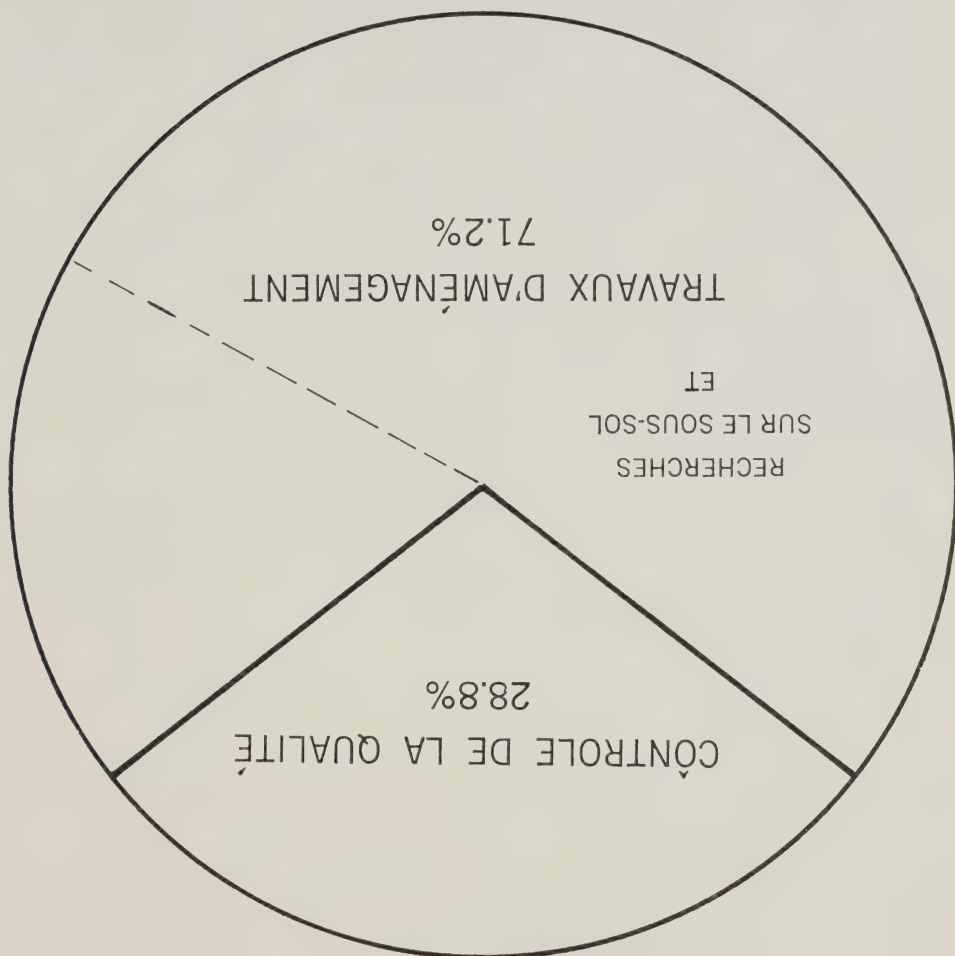
La Direction de la construction des édifices est chargée d'assurer des services architecturaux et techniques aux ministères fédéraux, en particulier pour la construction d'immeubles, les modifications, rajouts ou démolitions. Pendant l'année financière 1964-1965, elle a adjugé des contrats d'une valeur de \$60,746,272, contre \$54,859,087 l'année précédente. Le total représente une augmentation du nombre des édifices destinés à des fins spéciales, ce qui a plus que compensé la diminution des déboursés pour les immeubles à bureaux en général.

A titre d'organisme principal du gouvernement dans le domaine de la construction des édifices, elle a entrepris 395 projets. À la fin de l'année, les travaux se poursuivaient encore sur 346 de ces projets ainsi que sur 126 autres pour lesquels des contrats ont été adjugés pendant les années précédentes.

Parmi les nouveaux contrats, 297 étaient pour des locaux à bureaux en général, payés à même les fonds du ministère des Travaux publics. Ces contrats ont coûté environ le tiers du montant total. Les 98 autres contrats étaient pour des immeubles destinés à des fins spéciales pour lesquels les ministères-clients ont fourni les fonds; ils ont coûté les deux tiers du total, soit presque le double de l'année précédente. Un facteur important de l'augmentation a été l'adjudication de 17 contrats pour des institutions pénitenciaires dont la valeur s'élève à plus de 40 p. 100 des dépenses totales de l'année 1964-1965 (voir les graphiques).

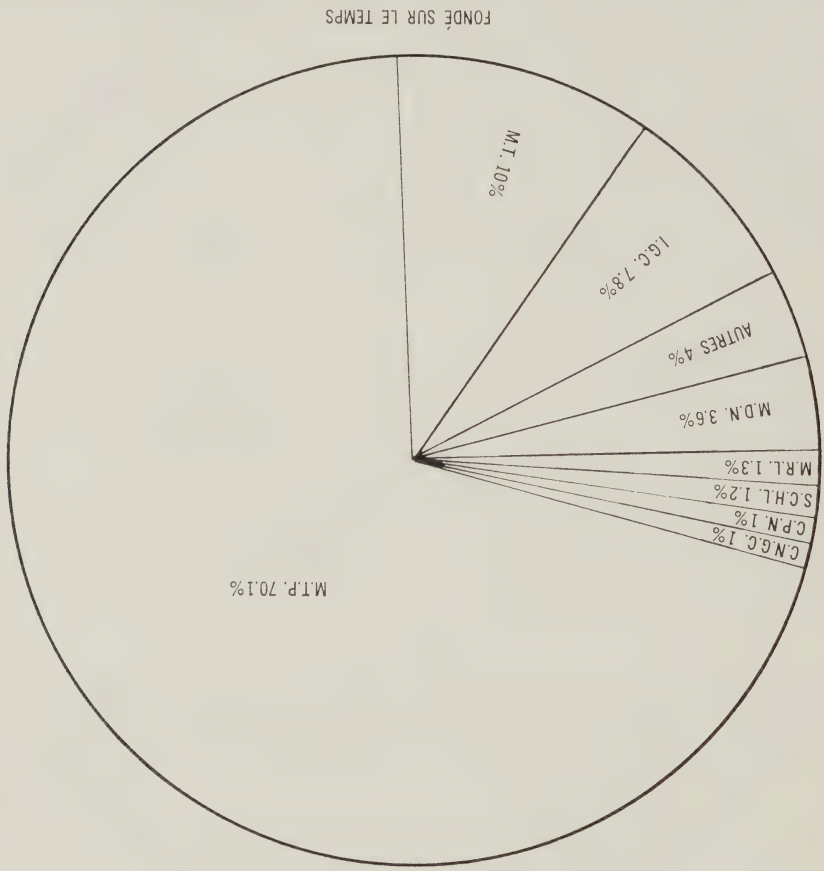
On a continué la réorganisation de la Direction, commencée en 1963, en s'efforçant de recruter le personnel requis par les bureaux régionaux afin d'exécuter les opérations décentralisées.

GENRE DE TRAVAIL



FONDÉ SUR DES HOMMES-HEURE

MINISTÈRES ET ORGANISMES POUR LESQUELS LE TRAVAIL EST EXÉCUTÉ

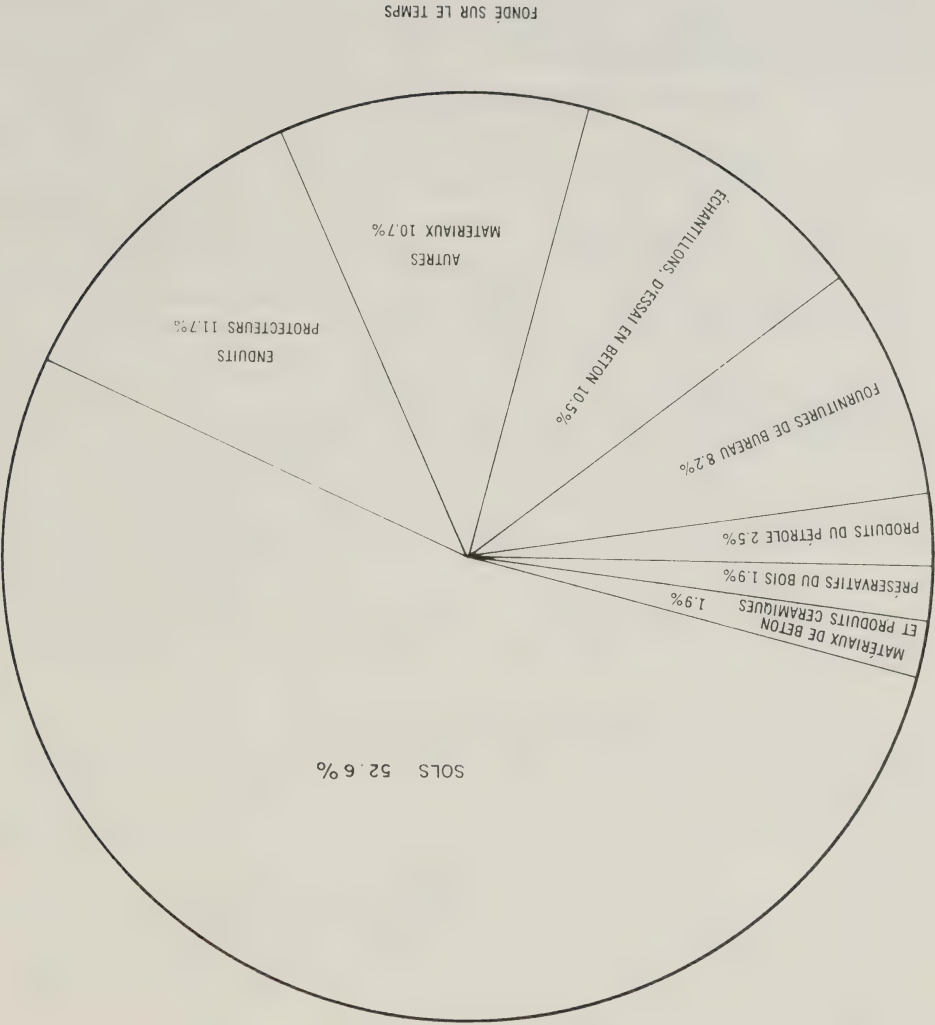


- LÉGENDE**

 - M. T. P. Ministère des Travaux publics
 - C. N. G. C. Commission des normes du gouverne-ment canadien
 - C. P. N. Conseil des ports nationaux
 - S. C. H. L. Société centrale d'hypothèques et de logement
 - M. R. T. Mines et Relevés techniques
 - M. D. N. Min. de la Défense nationale
 - I. G. C. Imprimerie du gouvernement canadien
 - M. T. Ministère des Transports
- AUTRES MINISTÈRES ET ORGANISMES**

 - Min. des Affaires des anciens combattants
 - Min. de la Justice
 - Min. du Nord canadien
 - Min. de l'Agriculture
 - Min. des Postes
 - Canadian Standards Association
 - G.R.C.
 - Atomic Energy
 - Hôtel de la Monnaie
 - Archives publiques
 - Commission de la capitale nationale
 - Voie maritime du Saint-Laurent

GENRE DE MATÉRIAUX ÉPROUVÉS



Autres ministères gouvernementaux

Nord canadien et Ressources nationales

Parcs nationaux	\$ 4,345,000
Administration du Nord	2,950,000
Transports	280,000
Agriculture	275,000
Justice	180,000
Mesures d'urgence	100,000
Gendarmerie royale	60,000
Mines et Relevés techniques	30,000
	<hr/>
	\$ 8,210,000

Projets d'assistance fédérale

Route transcanadienne	\$ 76,500,000
Routes vers les ressources (génie et surveillance seulement)	8,500,000
	<hr/>
	\$ 85,000,000
	<hr/>
GRAND TOTAL	\$107,458,000

LABORATOIRES D'ESSAIS

Le travail des laboratoires d'essais s'est poursuivi avec plus d'ampleur dans le domaine des ceintures de sécurité pour les automobiles, les ceintures de sauvetage et nombre d'autres projets. Comparativement à l'année précédente, la mise en valeur et les recherches ont été intensifiées et les épreuves sur la vérification de la qualité se sont continuées de façon accélérée.

On a révisé les méthodes internes d'opération. Une augmentation des échantillons traités et des données compilées à la suite d'un programme d'expansion peut être attribuée aux ajustements internes rendus possibles par cette révision.

Les nouveaux projets ont été nombreux. Des feux de route pour bateaux ont été mis à l'essai afin d'en déterminer l'efficacité. On a aussi examiné des lumières de sécurité pour les ceintures de sauvetage. Des matériaux en plastique on fait l'objet de tests sans précédent; on veut savoir s'ils pourraient être utilisés dans les portes à l'épreuve des explosions pour les abris contre les retombées.

Il convient de signaler que certaines méthodes conçues et utilisées par les laboratoires pour les essais des ceintures de sécurité pour automobiles ont été incluses avec les normes de la société américaine de la technique automobile et incorporées par le gouvernement fédéral des États-Unis aux lois régissant l'emploi des ceintures de sécurité.

Le programme suivant donne une idée de l'ampleur des services fournis au cours de l'année:

Essais sur le fonctionnement des serrures et des verrous — On a préparé des plans et construit un appareil pour faire des épreuves simulées sur le fonctionnement des serrures et des verrous. On s'attend qu'un programme d'essais commencera sous peu afin de déterminer, au moyen de cet appareil, quelques-unes de caractéristiques fonctionnelles de base et les limites du rendement possible de ces articles de quincaillerie de porte. Des tests seront faits également en vue de décider s'il y aurait lieu de soumettre ces mécanismes à l'étude d'une commission interministérielle chargée d'en déterminer la qualité.

On en est aux derniers stades des travaux de construction de la route de Jasper à Edmonton, de Banff à Jasper et à Windermere, de même que la route de la montagne Chief. De grosses inondations dans le parc national des lacs Waterton ont quelque peu retardé les travaux. La construction de la route de Jasper à Yellowhead a été approuvée et les huit premiers milles seront achevés au cours de l'année financière 1965-1966.

On a fait des enquêtes et établi des plans pour les régions du lac Louise inférieur et du lac Maligne afin de choisir l'emplacement des installations récréatives et le tracé de la route. Sur la rivière Bow, on a commencé à ériger les ponts donnant accès au terrain de camping près du lac Louise, projet qui sera terminé au début de l'année 1965-1966. Dans l'Est, on a posé les piliers du pont de l'anse Covehead, dans l'Ille-du-Prince-Edouard, et on s'attend que le pont sera livré à la circulation pour la saison touristique de 1965.

Les travaux sur la route d'Eastport, dans le parc national de Terra Nova, seront également terminés au début de l'année financière 1965-1966.

Dans les Territoires du Nord-Ouest, les travaux de construction se sont poursuivis sur la route de Fort Smith et de Pine Point; l'achèvement du pont sur la rivière Big Buffalo a marqué le franchissement du dernier obstacle important de la route à Pine Point.

La dernière phase des travaux sur la route reliant le lac Watson à la rivière Ross est commencée et la construction sera achevée au cours de l'été de 1965. Pendant la prochaine année financière, on commencera les travaux sur les 50 premiers milles de la route reliant la rivière Ross à Carmacks. Près de la frontière de l'Alaska, on entreprendra les travaux d'arpentage pour le dernier tronçon reliant Carmacks à Snag.

Projets divers

Dans la région de Yellowknife, on a terminé pour le compte du ministère des Mines et des Relevés techniques la construction d'un poste souterrain contrôlant le réseau des zones sismiques. Pour le compte du ministère des Transports, on a complété les travaux d'arpentage pour plusieurs routes d'accès à des postes d'éclairage et la construction est sensée commencer en 1965. Les travaux d'arpentage et de construction se sont poursuivis en vue d'aménager des services et des terrains de stationnement pour d'autres ministères et organismes.

Au cours de l'année, la Direction a été chargée de projets d'une valeur totale de \$107,500,000, comme il suit:

Ministère des Travaux publics

Crédits de la Direction

Exploitation et entretien	\$ 328,000
Réseau routier du Nord-Ouest	9,400,000
Ponts internationaux et interprovinciaux	2,800,000
et autres projets techniques	200,000
Route transcanadienne à travers les parcs	1,090,000
Laboratoires d'essais	430,000
Travaux pour le compte des autres	
Directions du Ministère	\$ 14,248,000

conditions actuelles se poursuivent sur place. Bien que des panneaux d'observation aient été en service pendant l'année, il n'y avait pas assez de glaces dans le détroit pour qu'on puisse obtenir des renseignements précis sur la valeur de la pression. La Northumberland Consultants Limited était sur le point de terminer un rapport détaillé et de faire des recommandations relatives à la conception définitive de la traversée.

Pont du chemin Heron

Le 14 mai 1964, le Ministère a reçu l'autorisation de conclure avec la ville d'Ottawa une entente portant sur plusieurs projets dans la capitale. Le pont à six voies du chemin Heron traversera la rivière Rideau, la promenade Colonel By et le canal Rideau aux alentours de Confederation Heights et constituera un accès facile au sud et à l'ouest de la ville.

Les phases de la planification et de la conception sont presque finies, et la ville d'Ottawa a adjugé un contrat pendant l'hiver. On prévoit que ce pont sera livré à la circulation à l'automne de 1966.

Réseau routier du Nord-Ouest

Le 2 octobre 1963, le Cabinet a approuvé une recommandation du Comité consultatif de la mise en valeur du Nord canadien en vertu de laquelle le ministère des Travaux publics a assumé la responsabilité des 1,220 milles de la route de l'Alaska, des 117 milles du raccourci Haines au Canada et de plusieurs voies d'accès à des aéroports, routes qui tombaient auparavant sous la juridiction du ministère de la Défense nationale. La prise de possession a eu lieu le 1^{er} avril 1964.

Une fois le transfert effectué, on a entrepris des études économiques et techniques en vue de déterminer les niveaux et l'alignement actuels et établir le coût estimatif des travaux de reconstruction nécessaires. On a continué l'entretien selon les normes définies auparavant par les administrateurs de la Défense nationale. Toutefois, on étudie présentement la possibilité d'adjuger un contrat pour l'entretien du tronçon de 180 milles à l'extrémité sud de la route. On est en train de prendre des mesures progressives pour faciliter le transfert au gouvernement territorial de l'administration du tronçon de la route qui traverse le Yukon. On espère que les accords nécessaires pourront être conclus au cours de 1967. Un des aspects essentiels de ce transfert sera la coordination des installations à Whitehorse avec celles de la municipalité. On est aussi à étudier la praticabilité de combiner les systèmes d'aqueduc, d'égout et d'énergie électrique ainsi que les services d'autobus et d'incendie, de même que les services scolaires et communautaires.

En juillet 1964, le Comité du transport sur le littoral du Pacifique a étudié les méthodes d'entretien du raccourci Haines en hiver. Comme résultat, il a recommandé au Cabinet que la route soit gardée ouverte à la circulation durant un autre hiver, et ce à titre de dernière phase des essais.

Parcs nationaux — Territoires du Nord-Ouest et du Yukon

On a commencé plusieurs nouveaux projets dans les parcs nationaux, alors que quelques uns, en marche depuis l'an dernier, ont été complétés. Ces travaux consistent surtout de construction routière entreprise pour le ministère du Nord canadien et des Ressources nationales.

L'avancement des travaux de défense contre les avalanches dans le parc Glaciers a été marqué par la construction d'un autre abri à neige et de paraneiges. Les paraneiges sont installés aux endroits où des avalanches sont susceptibles de se produire; ils servent de barrières et retiennent la neige qui autrement tomberait en avalanche.

Routes vers les ressources

La Direction assure la surveillance et le contrôle technique relatifs au Programme des routes vers les ressources qui relève du ministère du Nord canadien et des Ressources nationales. Au cours de l'année financière 1964-1965, on a approuvé de nouveaux projets en vertu de ce programme; ils étaient évalués à 14 millions de dollars. Les progrès réalisés pendant l'année sont décrits dans le rapport annuel du ministère du Nord canadien et des Ressources nationales.

Office d'expansion économique de la région atlantique

On a aussi chargé la Direction d'assurer la surveillance et le contrôle technique en rapport avec deux réseaux routiers dans les provinces maritimes et avec deux projets d'énergie, l'un au Nouveau-Brunswick et l'autre à Terre-Neuve. Tout cela relève de l'Office d'expansion économique de la région atlantique. Ces projets ont été annoncés au cours de l'année 1964-1965 et coûteront au trésor public la somme totale de 80 millions de dollars. Dans son rapport annuel, l'Office d'expansion économique de la région atlantique publie les détails sur la marche des travaux exécutés pendant l'année financière.

Reconstruction de la Route n° 6 dans les comtés de Matane et de Gaspé-Nord (P.Q.)

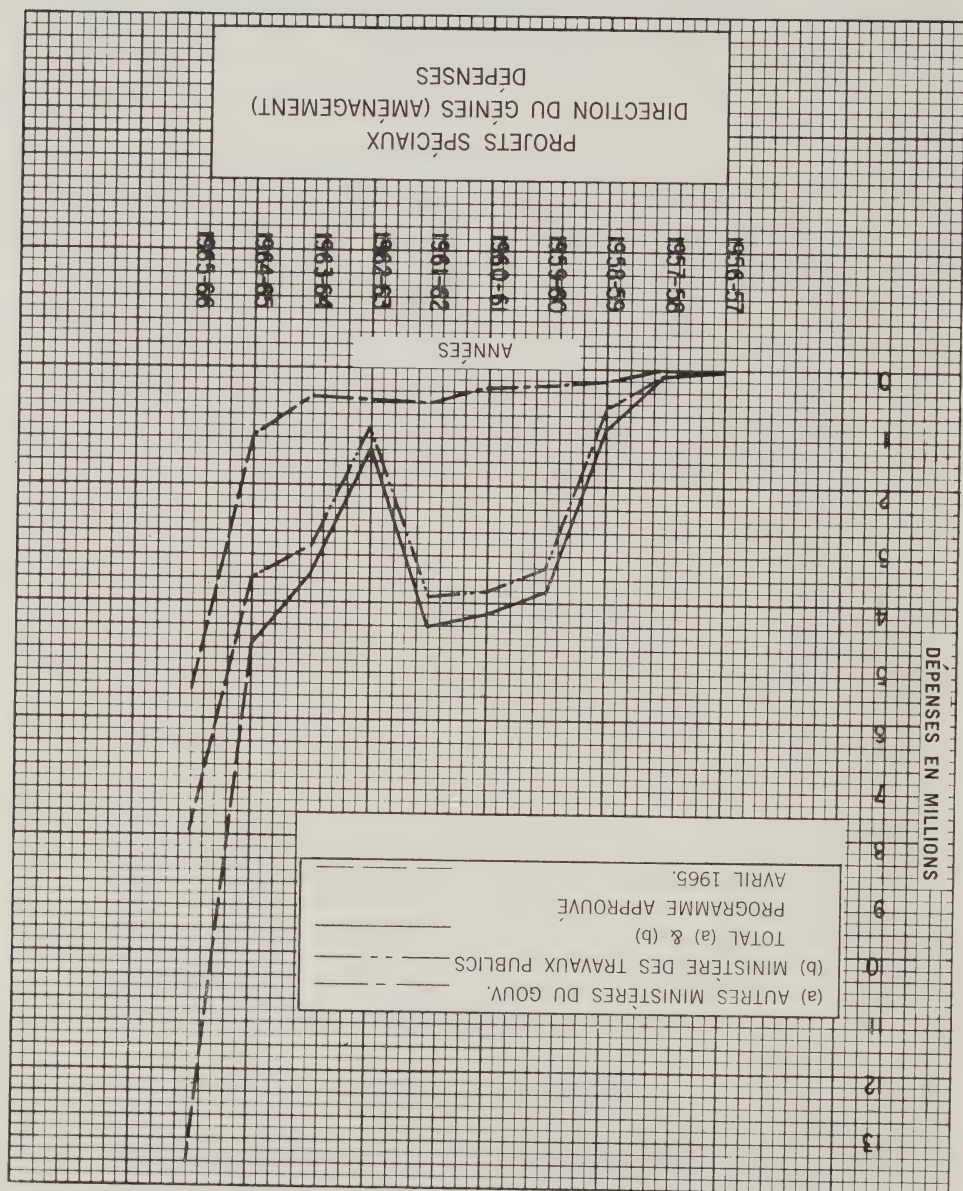
Tel qu'on l'a annoncé au mois d'août 1964, le gouvernement fédéral est disposé à verser jusqu'à concurrence de 13 millions pour la reconstruction d'une partie de la Route n° 6, dans la province de Québec; il s'agit d'un tronçon d'une longueur d'environ 86 milles le long de la rive nord de la Gaspésie. Au 31 mars 1965, on était en train de négocier avec la province de Québec afin d'en arriver à une entente qui tombera sous la juridiction de la Direction.

Pont Macdonald-Cartier

Pendant la saison de construction de 1964, on a poursuivi les travaux sur le tablier en acier du pont et l'installation en a été complétée le 16 octobre 1964. On a construit le tablier à partir de chaque rive et la dernière poutre a été installée au milieu le 10 septembre 1964 (voir la photographie). Fait intéressant à noter, sur 2,030 pieds de tablier bombé, le niveau des poutres au centre de la travée et celui qui était prescrit dans le devis ne différaient que d'un demi-pouce sur un côté et de trois seizièmes de pouce sur l'autre. A la fin de l'année, la construction du pont avait progressé selon les prévisions et l'on s'attend qu'il sera terminé pour le 15 octobre 1965. Les travaux qui restaient à faire étaient la coulée du tablier en béton, l'installation des poteaux d'éclairage, de la canalisation électrique et des garde-fous. Les travaux sur les approches exécutés par les provinces de Québec et d'Ontario sont également censés être terminés pour le 15 octobre.

Traverse du détroit Northumberland

Au cours de 1964-1965, des études approfondies sur maquette ainsi que d'autres recherches relatives à la traverse du détroit Northumberland ont contribué à résoudre nombre de problèmes techniques soulevés par ce projet gigantesque. Non la moindre des difficultés était celle que posent les masses de glaces flottantes et les pressions qu'elles exercent. Auparavant, on ne connaissait à peu près rien des forces réelles créées par une masse hétérogène de glace au moment où elle frappe les piliers d'un pont. L'épaisseur variable des masses de glace, la rapidité variable du courant d'un pont, l'aide de la maquette d'une canalisation à glaces, on a pu établir la forme des piliers du pont et la conception d'un déflecteur de glaces. Cependant, les recherches sur les



En Colombie-Britannique, on a complété le premier stade du prolongement au quai dans le port de Nanaimo, et les travaux du deuxième stade sont déjà avancés. D'importants travaux de dragage ont été exécutés dans le fleuve Fraser, tant par des entrepreneurs que par la drague du Ministère.

Le ministère des Transports a fait appel aux talents des experts et des techniciens de la Direction pour mener à bien des travaux de renflouage de nature un peu rare. Un bateau-réservoir avait coulé dans 300 pieds d'eau près de l'île Pasley, à l'entrée de Howe Sound (C.-B.), et on a demandé au ministère des Travaux publics de surveiller le renflouage. Ce projet était devenu nécessaire afin d'empêcher que les eaux du littoral soient contaminées et les animaux sauvages exterminés par l'écoulement de la cargaison du bateau-réservoir; 300,000 gallons de combustible lourd semblable à du goudron. Les équipes de plongeurs ont travaillé ferme pendant des semaines à des profondeurs dangereuses avant de réussir à renflouer le bateau.

Par l'intermédiaire de la Commission mixte internationale, la Direction a continué à jouer un rôle dans les enquêtes menées vue de déterminer la possibilité de construire un canal maritime pour joindre le fleuve Saint-Laurent à la rivière Hudson en passant par la rivière Richelieu et le lac Champlain. La Commission fait aussi une enquête sur le niveau des eaux des Grands Lacs; pour y contribuer, la Direction a entrepris une étude sur l'effet des fluctuations du niveau des eaux des Grands Lacs sur les installations maritimes et portuaires et sur l'érosion des berges des lacs.

On a fait une enquête préliminaire pour déterminer s'il serait techniquement possible d'améliorer la rivière des Mille-Iles et la rivière des Prairies pour la navigation des petits bateaux. A la suite de demandes faites par le public, les ingénieurs attachés aux 14 bureaux régionaux ont également fait nombre d'enquêtes variées. Ces enquêtes fournissent des renseignements précieux qui aident à l'élaboration des programmes futurs de la Direction.

DIRECTION DU GÉNIE (AMÉNAGEMENT)

Au cours de l'année, la diversification des projets de la Direction du génie (aménagement) dans le domaine des travaux techniques s'est poursuivie. Les ministères et les organismes fédéraux ont eu de plus en plus recours aux services qu'elle fournit maintenant, et ils ont indiqué dans leurs prévisions pour l'année prochaine que cette tendance ira s'accroissant (voir le graphique). Parmi ses fonctions principales, la Direction compte les travaux techniques concernant l'emplacement et la construction des routes, des voies d'accès et des ponts, les essais en laboratoire et sur les chantiers, les projets d'expansion des régions, les études sur les approvisionnements d'eau et l'évacuation des eaux d'égout, ainsi que des entreprises spéciales comme l'aménagement des régions du lac Malinche et du lac Louise.

Route transcanadienne

Les conventions relatives à la route transcanadienne sont la responsabilité de la Direction; elles prévoient la construction d'une route revêtue ayant deux voies carrossables en tout temps dont le coût est partagé entre le gouvernement fédéral et les gouvernements provinciaux. Au cours de l'année 1964-1965, la plupart des travaux relatifs à la route transcanadienne ont été exécutés au Québec et à Terre-Neuve, où on a entrepris de nouveaux projets dont le coût partageable était de \$59,200,000 et \$21,800,000 respectivement. Pour cette année, on trouvera dans le rapport des procès-verbaux de la Loi sur la route transcanadienne tous les détails de la marche de la construction, des engagements pris par chaque province et des paiements versés à chacune d'elles selon les termes de certains accords; on y verra aussi les détails de la construction des routes à travers les parcs nationaux.

Le Conseil des ports nationaux et le ministère des Travaux publics.

La circulation plus dense entre la terre ferme et Terre-Neuve a créé le besoin d'améliorer le service des traversiers dans le golfe Saint-Laurent. Comme résultat, vu qu'il est chargé d'assurer un service adéquat, le ministère des Transports a demandé que les travaux soient entrepris par notre Ministère. Au cours de l'année, on a mis la dernière main aux plans des terminus à North Sydney, Port-aux-Basques et Argentina. Les travaux préliminaires au terminus de North Sydney ont commencé vers la fin de l'année et la construction des trois terminus doit commencer sans tarder.

Vu qu'un seul entrepreneur n'a pas encore complété ses travaux, on peut dire que la modernisation du port de Saint-Jean (T.-N.) est presque chose faite; ce projet a coûté plus de 19 millions de dollars. Parmi d'autres entreprises importantes à Terre-Neuve, on a construit, à Clarenceville et à Lewisport pour le compte du ministère des Transports des cales de halage d'une capacité respective de 500 tonnes et de 75 tonnes. Il y a eu aussi la construction d'un gros brise-lames à l'anse Green Island dans la région de Saint-Barbe-Nord, un prolongement de \$500,000 au quai à Saint-Alban, dans la baie d'Espoir, et la construction de quais à la baie Verte et à Charlottetown, dans la baie Bonavista.

Dans l'Île-du-Prince-Édouard, à Charlottetown et Borden, on a exécuté des projets d'une valeur de plus de 1 million pour le compte du ministère des Transports. En plus du terminus de passage d'eau, à North Sydney, d'importants projets ont été réalisés en Nouvelle-Écosse, y compris un quai d'agence maritime à Dartmouth pour le ministère des Transports ainsi que des améliorations portuaires pour l'industrie de la pêche, à Saultville. Pour ce dernier projet, on a utilisé le brise-lames troué de conception canadienne comme celui dont on s'est servi à Baie-Combeau (P.Q.). Fondé sur le même principe que le carreau insonorisant, le brise-lames a des trous qui servent à absorber et à réduire la poussée des vagues, de sorte qu'il est tout à fait approprié aux emplacements situés sur le littoral de la mer.

Dans la province de Québec, on a entrepris de gros travaux portuaires, y compris un quai à Black Cape (New Richmond) construit en vertu d'une entente conclue avec Bathurst Pulp and Paper Company, des terminus de passages d'eau à Pointe-au-Père, Rivière-du-Loup, Saint-Siméon et Baie-Combeau; on a aussi commencé les travaux préliminaires de l'aménagement portuaire évalué à 7 millions, à Gros-Cacouna, et construit ou réparé nombre d'ouvrages de protection sur les rives du fleuve Saint-Laurent et de la rivière Richelieu.

Un des projets les plus hardis était l'ouvrage de retenue des glaces d'une valeur de 13 millions érigé sur le fleuve Saint-Laurent, à quelques milles en amont de l'emplacement de l'Expo '67. Une fois complété, l'ouvrage couvrira une distance de 8,500 pieds à travers le fleuve sur 72 piliers dépassant le niveau de l'eau de 40 pieds. De grosses barrières en acier, actionnées par l'électricité, seront installées entre les piliers; au cours de l'hiver, elles seront abaissées de façon à retenir les glaces flottantes sans entraver l'écoulement des eaux.

Comparativement aux années précédentes, il y a eu moins de construction dans les ports des Grands Lacs cette année. Les travaux d'améliorations aux quais du Hamilton, se sont poursuivis; on a exécuté des travaux additionnels aux quais du Centenaire à la rue Sainte-Catherine, et on a reconstruit en partie les piliers du chenal à Burlington. A la Tête des Lacs, des réparations au brise-lames et des travaux de dragage ont été exécutés. A plusieurs endroits aux lacs Erie et Huron, on a dragué et reconstruit les quais.

Les dragues du Ministère ont été beaucoup utilisées cette année dans les provinces des Prairies et dans les territoires du Nord-Ouest. Comme à l'accoutumée, on a continué à faire des travaux de dragage d'entretien sur la rivière Rouge et au lac Winnipeg. Durant toute la saison de navigation, cinq dragues du Ministère et un bateau déblayeur ont travaillé à plein temps dans la voie maritime de 1,700 milles des rivières Athabaska et Mackenzie.

A la fin de l'année financière, on était en train de négocier l'achat de 1,096 autres emplacements (dont 509 ont été acquis par la Couronne par voie d'expropriations, en attendant le règlement définitif) moyennant un coût estimatif de 20 millions de dollars.

La Direction est aussi chargée de conseiller les ministères-clients au sujet des méthodes de vente, les aider à obtenir des évaluations indépendantes et les conseiller relativement à l'évaluation équitable des emplacements qu'ils désirent acheter. Au cours de l'année, 63 propriétés excédentaires ont été transférées à la Corporation de disposition des biens de la Couronne.

DIRECTION DU GÉNIE (PORTS ET RIVIÈRES)

La Direction du génie (ports et rivières) est le principal organisme du gouvernement fédéral dans le domaine des travaux maritimes. C'est à ce titre qu'elle est chargée de plus de 4,000 havres et ports sur les Grands Lacs ainsi que le long des voies maritimes intérieures et des trois océans qui baignent le littoral. Au cours de l'année, les nouvelles constructions, les réparations et l'exploitation se sont chiffrées par plus de 30 millions de dollars.

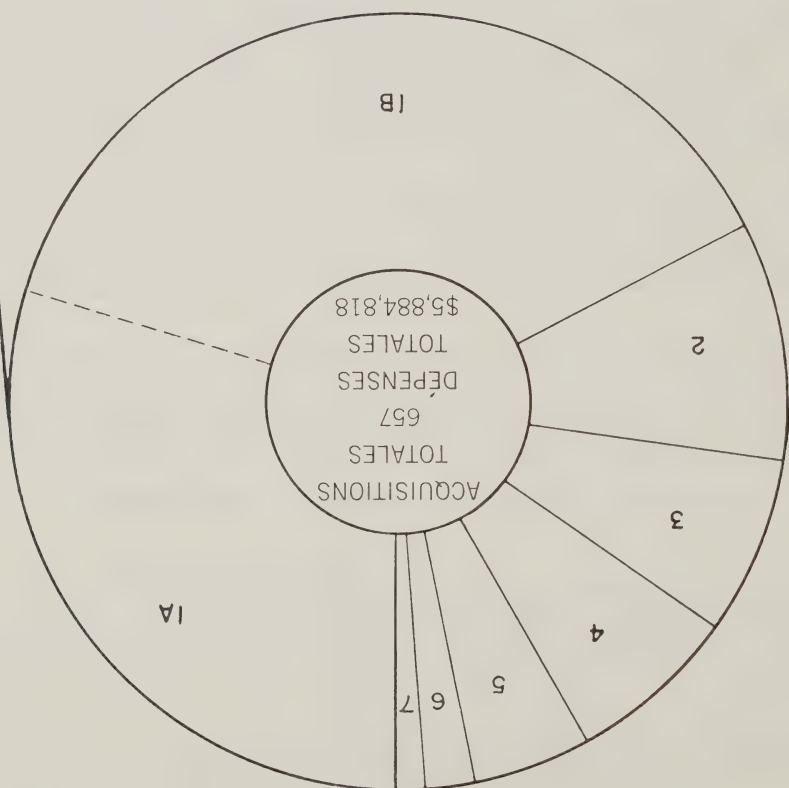
L'ampleur de ces entreprises a servi à démontrer l'importance continue des transports maritimes comme facteur de croissance économique. L'industrie se développe à une allure de plus en plus rapide et on a exprimé l'intention d'en faire bénéficier toutes les régions du pays, ce qui laisse prévoir des activités maritimes encore plus étendues à l'avenir. Des organismes tels que l'Office d'expansion économique de la région atlantique et l'Administration de la remise en valeur et l'aménagement des terres agricoles (ARDA) ont servi à mettre en oeuvre des ouvrages maritimes affectés à l'industrie de la pêche. Leur influence s'est aussi fait sentir dans l'industrie du bois et de la pâte à papier, dans les entreprises minières et dans d'autres industries lourdes. Vu que le besoin de meilleures installations d'expédition va de pair avec l'expansion industrielle, le Ministère a joué un rôle important au sein du Comité consultatif du conseil du Trésor en matière de construction maritime, comité interministériel spécialement organisé pour étudier les lignes de conduite et coordonner la planification des ouvrages maritimes dans leurs grandes lignes.

Parmi les travaux exécutés par la Direction au cours d'une période de 12 mois, on compte la construction et la réparation de quais, de brise-lames, de cales de halage, de rampes de lancements et d'ouvrages de protection. A 450 endroits, on a dragué en vue d'améliorer ou d'entretenir les chenaux de navigations; 70 p. 100 de ces travaux ont été exécutés à forfait et la Direction s'est chargée du reste en utilisant son propre outillage. La Direction a continué à exploiter des bassins de radoub importants à Esquimaux (C.-B.), et à Lauzon (P.Q.), de même que des installations pour les petites réparations des navires, à Selkirk (Man.). Elle s'est aussi chargée de l'entretien et de l'exploitation de barrages régulateurs sur la rivière Outaouais et sur la rivière des Français de même que d'un barrage-écluse sur la rivière Rouge. Dans la région d'Ottawa, elle a vu à entretenir et réparer 19 ponts pour le compte de la Direction du génie (aménagement).

On jugera de l'influence d'une économie florissante sur le programme de la Direction par l'ampleur des travaux portuaires entrepris à Belledune Point (N.-B.), des installations pour le traversier à Grand Manan (Blacks Harbour et North Head) (N.-B.) et des terminus de passages d'eau pour le compte du ministère des Transports, à North Sydney (N.-E.), Port-aux-Basques et Argenta (T.-N.).

La préparation des plans de l'aménagement portuaire à Belledune Point a été un des faits saillants de l'année. Ce projet comprend la construction d'un port complet pour l'expédition de cargaisons générales et le service d'un centre industriel de 180 millions actuellement en construction pour des fonderies de métaux de base, une usine sidérurgique ainsi que des manufactures d'engrais et de produits chimiques. Les tra-

7	OMU ET TRANSPORTS	1 %
6	SANTÉ ET BIEN-ÊTRE SOCIAL	3 %
5	REVENU NATIONAL	5 %
4	MINES ET RELEVÉS TECHNIQUES	7 %
3.	PÊCHERIES	7 %
2	JUSTICE, G.R.C. ET PÉNITENCIERS	10 %
1B	AUTRES ACQUISITIONS DU M.T.P.	38 %
1A	M.T.P. (BUREAUX DE POSTE)	29 %
MINISTÈRE		POURCENTAGE DES ACQUISITIONS



locaux loués d'une superficie de 200,000 pieds carrés; il était auparavant logé dans un édifice de la Couronne qui a dû être démoli afin qu'on ait un emplacement plus grand pour le Musée national. On a aussi loué quelque 80,000 pieds carrés de locaux afin d'y loger le personnel plus nombreux des ministères intégrés de la Production de défense et de l'Industrie. Par la voie d'un appel d'offres publiques, la Direction a également loués des locaux pour le ministère du Travail et pour le ministère du Nord canadien et des Ressources nationales, soit 200,000 et environ 172,000 pieds carrés respectivement. Le secrétariat d'Etat est maintenant logé dans de nouveaux bureaux dont la superficie se chiffre par cent soixante-quinze mille pieds carrés. Dans le cas des trois derniers ministères mentionnés ci-dessus, les locaux sont devenues disponibles au cours de l'été de 1965. Dans les cinq cas, le Couronne n'avait pas assez de locaux.

En collaboration avec les fonctionnaires régionaux et les ministères concernés, on fait une révision continue des locaux. Comme résultat, la Direction a recommandé au cours de l'année des modifications importantes ou la construction de nouveaux édifices à 78 emplacements, ce qui représente des locaux d'une superficie de 1,173,500 pieds carrés.

Comme résultat d'études faites par la Direction, on a approuvé la construction, à Ottawa, d'un nouvel édifice d'importance d'une superficie de 387,000 pieds carrés pour la Division de l'impôt du ministère du Revenu national, dont 160,000 seront affectés à l'administration centrale et 227,000 au centre des données fiscales.

On a fait des études et préparé des rapports afin d'encourager le meilleur emploi possible des locaux existants et futurs et pour étendre la portée des normes relatives aux locaux existants. Le plus gros édifice étudié a été l'Imprimerie nationale, à Hull (P.Q.), qui couvre une superficie nette de quelque 716,000 pieds carrés. On a aussi étudié les besoins futurs en locaux pour les six bureaux régionaux de la Division de l'impôt du ministère du Revenu national qui occupent une superficie de 449,000 pieds carrés.

Une étude détaillée faite conjointement avec les fonctionnaires du ministère des Postes relativement aux salles de travail de 75 bureaux de poste ontariens, dont la superficie nette est de 2,500 à 40,000 pieds carrés chacun, a donné lieu à l'adoption d'une formule et d'une méthode améliorée d'estimation des besoins en locaux. La formule est basée sur des données statistiques telles que le nombre de familles et d'établissements commerciaux servis, le taux de croissance de la région en cause ainsi que la quantité et le genre de courrier manutentionné au cours d'une période de temps. Un comité conjoint formé de membres de notre Direction et de celle de la Construction des édifices poursuit des recherches sur les effets de la climatisation dans les édifices à bureaux. Le comité a pour objectif de recommander une ligne de conduite appropriée aux édifices existants et futurs; il s'attend de présenter son rapport au début de 1965 ou de 1966.

Suivant sa ligne de conduite, la Direction s'est efforcée de louer les locaux vacants qui sont situés dans les édifices appartenant à la Couronne et qui ne sont pas requis présentement à des fins fédérales. Les revenus en provenance de cette source se sont élevés à \$440,388. A la fin de l'année, seulement 2.5 p. 100 de tous les locaux administrés par la Direction étaient vacants.

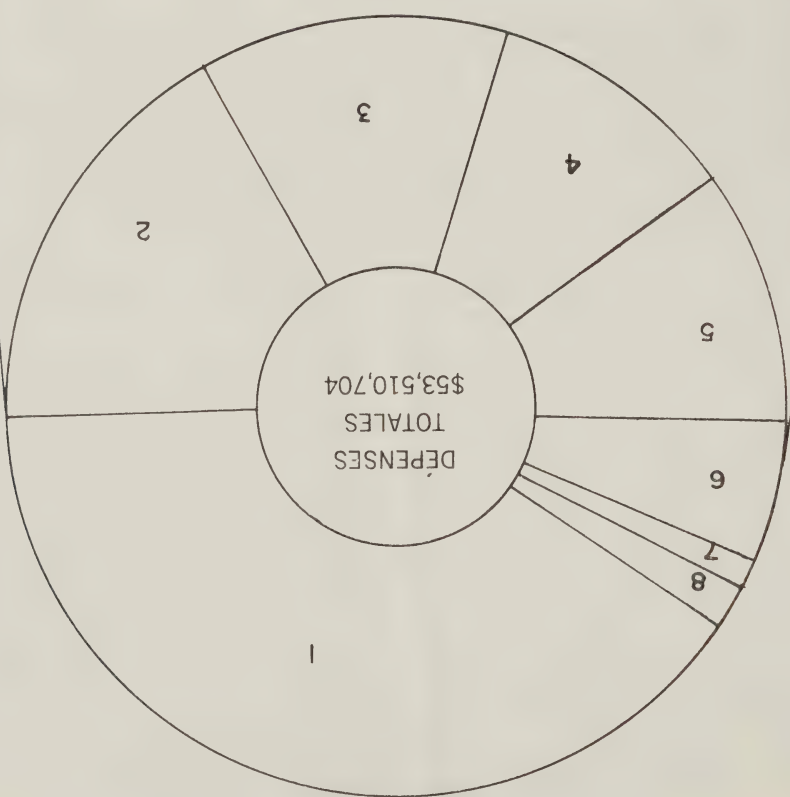
La location d'habitations appartenant à la Couronne a donné \$1,997,862 en revenus, alors que les commissions sur les appels téléphoniques dans des cabines situées dans les immeubles fédéraux ont rapporté \$25,419 pendant l'année.

Au nom des ministères qui font appel à ses services pour l'achat de terrains, y compris les Travaux publics, la Direction de la gestion des immeubles se charge de l'achat et de la vente des terrains. Le nombre d'achats de propriétés a été exceptionnel cette année.

Le nombre total d'emplacements achetés au cours de l'année a été de 657, soit une dépense totale de \$5,884,818.

Le tableau suivant indique le pourcentage approximatif des acquisitions totales pour les ministères-clients, y compris les Travaux publics.

1	APPOINTEMENTS ET SALAIRES	40.1 %
2	LOYERS	16.8 %
3	RÉPARATIONS AUX IMMEUBLES	13.0 %
4	SERVICES MUNICIPAUX	11.4 %
5	MATÉRIAUX ET FOURNITURES	10.8 %
6	SERVICES PROFESSIONNELS ET SPÉCIAUX	6.5 %
7	FRAIS DE DÉMÉNAGEMENT	0.4 %
8	AUTRES DÉPENSES DIRECTES	1.0 %
BUT DES DÉPENSES		POURCENTAGE DES DÉPENSES



SUPERFICIE NETTE UTILISABLE

EDIFICES appartenant à la Couronne	Nombre	Mille	carres	pieds	Nombre	Mille	carres	pieds	Lieux loués	Frais d'exploit- ation	Loyers compris	\$
Terre-Neuve	160	820	37	32	1,685,121.65	32	1,685,121.65	1,457,446.37	152	1,457,446.37	228,354.68	1
Nouvelle-Ecosse	143	787	41	152	1,457,446.37	152	1,457,446.37	1,014,849.72	39	1,014,849.72	7,110,016.90	773
Québec (sauf Hull)	366	4,237	246	773	7,110,016.90	773	7,110,016.90	7,913,128.07	805	7,913,128.07	6,443,275.10	89
Manitoba (y compris Fort Churchill)	376	2,905*	65	89	6,443,275.10	89	6,443,275.10	1,423,861.85	76	1,423,861.85	2,341,832.04	196
Saskatchewan	157	998	103	76	1,423,861.85	76	1,423,861.85	1,386	137	2,341,832.04	2,341,832.04	196
Alberta et T. N.-O.	136	1,386	137	196	2,341,832.04	196	2,341,832.04	2,372**	89	3,147,851.54	3,147,851.54	201
Colombie-Britannique et Territoire du Yukon	137	2,372**	89	201	3,147,851.54	201	3,147,851.54	417,755.07	3	417,755.07	46,880.70	6
Angleterre	1	106	3	3	417,755.07	3	417,755.07	4,818.77	1	4,818.77	20,229,123.64	1,863
Etats-Unis	—	—	3	6	46,880.70	6	46,880.70	28,872	1,184	4,237	53,464,316.10	4,237
Autres pays étrangers	—	—	1	1	4,818.77	1	4,818.77	8,920	151	1,863	20,229,123.64	1,863
Capitale nationale	122	8,920	151	1,863	20,229,123.64	1,863	20,229,123.64	2,103	28,872	4,237	53,464,316.10	4,237

* La superficie totale des édifices à Fort Churchill est approximative.
** Ne comprend pas les locaux connexes du réseau routier du Nord-Ouest.

Cette année, le coût d'exploitation par pied carré de superficie nette utilisable est de \$1.61, y compris la location des locaux à bail ainsi que le coût des réparations et de l'entretien.

En dépit de responsabilités plus grandes, les appointements et salaires consistent 40.1 p. 100 des dépenses, par comparaison à 42.2 p. 100 l'année précédente, ce qui atteste le succès de la pratique visant à embaucher des entrepreneurs privés pour assurer la marche des services dans les immeubles à mesure que le personnel diminue par le jeu des retraites normales.

A cause du nombre élevé d'immeubles qui diffèrent par l'âge, la conception, l'utilisation, l'emplacement et l'importance, et vu la grande variété d'occupants, on comprend facilement que beaucoup de réparations et de modifications sont nécessaires. Autant que possible, des entrepreneurs privés sont affectés à ce genre de travaux. Pendant l'année financière, en plus des tâches exécutées par le personnel de la Direction, on a adjugé presque 16,000 contrats, soit une valeur totale de plus de 5 millions, pour des projets de cette nature. Le tableau 3 indique l'ampleur de la répartition de ces travaux et le classement des contrats selon leurs valeurs.

- Définition détaillée des programmes et des activités de l'administration.
- Autres visites aux bureaux régionaux et recherches à l'administration centrale en vue d'établir les exigences fonctionnelles dans le domaine des finances, du personnel, des contrats et des matériaux, ainsi que l'administration conformément aux méthodes d'exploitation approuvées de l'organisation.
- Mise au point générale des propositions relatives à ces domaines fonctionnels.
- Pour son approbation, présentation au sous-ministre des recommandations détaillées sur l'organisation et les méthodes d'exploitation, de même que d'un rapport succinct sur les recommandations relatives à tous les autres aspects du mandat.

Phase 3

- Rapport détaillé sur les recommandations devant être mises en oeuvre.
 - Mise au point des plans d'exécution.
 - Soumission de recommandations additionnelles au sous-ministre.
 - Préparation et présentation du rapport de l'enquête au sous-ministre.
- Le projet prévoit également la division de l'étude en cinq parties.

1. Rôle et fonctions du Ministère — les fonctions, tous les aspects de l'organisation et définition des programmes et des domaines des activités aux fins de la gestion.

2. Méthodes d'exploitation — planification, production, adjudication de contrats, surveillance, administration et direction des fonctions du Ministère dans le domaine de la construction et de la gestion des immeubles.

3. Finances et administration — tous les aspects de l'administration financière, tels que l'organisation, la planification, le contrôle, la comptabilité, la préparation des rapports et la vérification.

4. Personnel et administration — tous les aspects de l'administration du personnel, y compris les lignes de conduite touchant le personnel, le personnel lui-même, l'organisation, la planification relative aux effectifs, les rapports avec les employés, l'évaluation du travail, la classification et les systèmes de paye.

5. Matériaux ainsi que gestion et administration — un programme visant la gestion des matériaux de même que l'administration en général.

A la fin de l'année, l'étude se poursuivait tel qu'on l'avait prévu. On avait complété les enquêtes sur place et l'équipe d'étude était en train de préparer l'analyse et l'identification sommaire des domaines où surviennent des problèmes fonctionnels, de l'organisation, des méthodes d'exploitation, de l'administration financière, et des aspects touchant les matériaux, l'administration et le personnel du Ministère.

DIRECTION DE LA GESTION DES IMMEUBLES

Lorsqu'une cérémonie a lieu sur la colline du Parlement ou qu'un édifice est inauguré dans un village canadien, on peut être certain que le "Service silencieux" de la Gestion des immeubles y a été pour quelque chose. Pour les 7,000 hommes et femmes de la Direction, un jour de travail peut consister à exécuter des fonctions de cette nature, faire fonctionner un ascenseur, remonter des horloges, hisser des draps ou assurer la surveillance.

Avec l'aide de particuliers engagés à forfait, ils rendent possibles la disponibilité et l'entretien des locaux essentiels à plus de 100 autorités fédérales distinctes dans 3,000 immeubles dont la superficie totale de plancher s'élève à un mille et un quart carés.

Le secrétariat mis sur pied par la Direction du personnel aux fins du programme de primes à l'initiative et pour les différentes campagnes officiellement autorisées a rapporté que la vente d'obligations d'épargne du Canada et la campagne de la Fédération des oeuvres d'Ottawa-Hull ont eu beaucoup de succès. Le Ministère a été le premier à atteindre et à dépasser son objectif de \$18,060 pour la Fédération des oeuvres. Cet objectif est le plus élevé accepté jusqu'ici par le Ministère et les employés se sont montés généreux en donnant \$22,035, soit 22 p. 100 de plus que l'objectif. Les ventes d'obligations d'épargne du Canada se sont chiffrées par \$922,000, un nouveau record, 16 p. 100 au-dessus de l'objectif de \$795,000.

Le fait qu'on a accepté 18 p. 100 de toutes les suggestions faites par l'entremise du Programme de primes à l'initiative atteste le vif intérêt et l'encouragement soutenu manifestés par les employés pour les programmes auxquels participent le public et le Ministère. On prévoit qu'il en résultera des épargnes de \$63,350 au cours de la première année. Les 35 personnes dont les suggestions ont été mises à effet ont reçu en moyenne \$83, la plus haute moyenne atteinte jusqu'ici au Ministère.

Malgré les efforts soutenus pour assurer le recrutement, l'année dernière a été marquée par une pénurie persistante de professionnels et de techniciens qualifiés. De concert avec la Commission du service civil, des mesures ont été prises vers la fin de l'année afin d'améliorer les méthodes de recrutement. Bien que tous les effets n'en seront pas ressentis avant l'an prochain, les résultats préliminaires sont encourageants.

SERVICES DE GESTION

La décision d'engager des experts en gestion pour entreprendre une étude complète du ministère des Travaux publics a surpassé en éclat tous les autres événements qui se sont produits aux Services de gestion. Nous avons passé la majeure partie de l'année à préparer l'étude, à établir la portée du mandat, à obtenir les autorisations nécessaires, à prendre les dispositions requises pour avoir des locaux et l'assistance de secrétaires et à interviewer les maisons d'experts-consults.

Il a été décidé que la façon la plus efficace de procéder serait de former une équipe d'étude composée d'experts en gestion et de fonctionnaires sous la direction d'un directeur principal du projet choisi parmi les maisons d'experts-consults. Afin que plusieurs ministères puissent tirer profit de cette expérience, des fonctionnaires d'autres ministères ont été employés à cette étude.

Nous avons demandé à trois compagnies de faire une enquête préliminaire sur le Ministère. Après avoir étudié leurs recommandations, un comité composé de hauts fonctionnaires du Ministère et de représentants du conseil du Trésor ont décidé d'inviter Peat, Marwick, Mitchell and Co. à entreprendre l'étude.

A cause des engagements qu'elle avait pris auparavant, la compagnie n'a pas été en mesure de commencer son étude de gestion avant le 15 février. Durant les trois premières semaines, elle s'est occupée de la planification détaillée et de la formation de l'équipe d'étude.

Vu l'ampleur du sujet à l'étude, on a décidé de diviser l'enquête en trois phases :

Phase 1

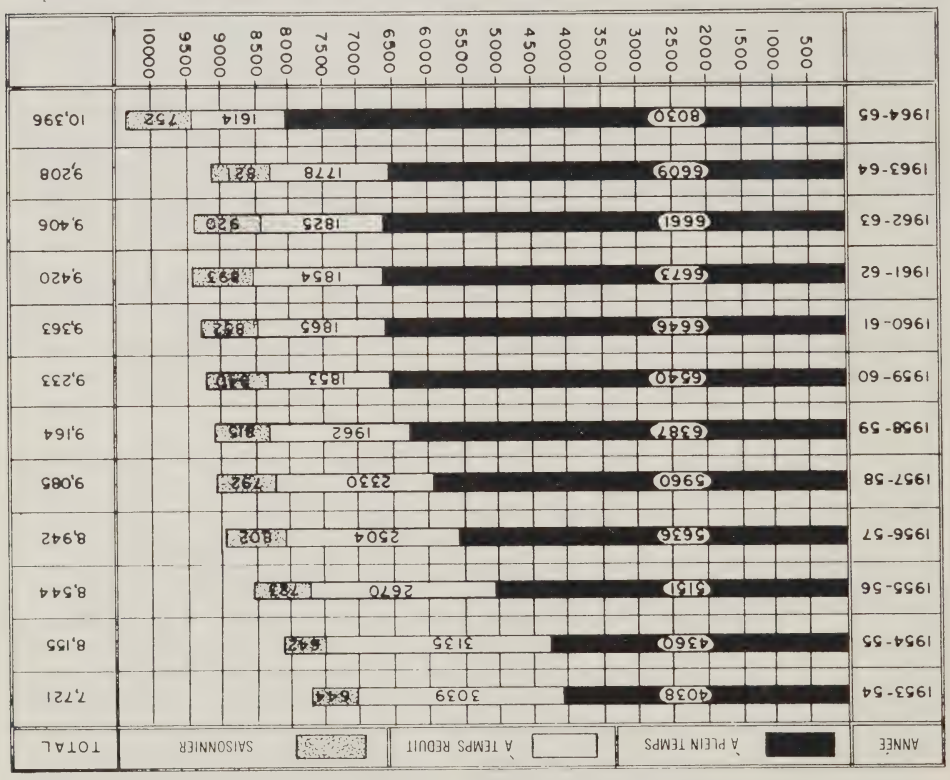
- Etude approfondie des pratiques existantes à l'administration centrale et dans les bureaux régionaux.
- Analyse de l'organisation et des systèmes de gestion existants et mise au point des recommandations visant à l'amélioration générale de l'organisation et des méthodes d'exploitation.
- Soumission de ces recommandations au sous-ministre pour son étude et son approbation en principe.

Phase 2

- Mise au point de recommandations détaillées pour l'amélioration de l'organisation et des méthodes d'exploitation.

immeubles), et dans les bureaux de district de la même Direction. En collaboration avec la Commission du service civil, des enquêtes ont aussi été faites sur l'administration centrale de la Direction du génie (ports et rivières), les Laboratoires d'essais, Bureau du district d'Ottawa.

De concert avec la Commission du service civil, on a examiné et approuvé la classification de plus de 500 emplois; ce travail se poursuit au sujet de 75 autres emplois.



La Direction a pris part à l'analyse du rapport du Comité préparatoire sur les conventions collectives ainsi qu'au programme de révision des classifications, élaboré en conformité d'une recommandation contenue dans le rapport. On prévoit que ce programme demandera de plus en plus d'attention au cours des prochains douze mois.

Un certain nombre de programmes de formation de surveillants et de spécialistes se sont poursuivis en dépit d'une pénurie de personnel qualifié, ce qui a sérieusement entravé les projets de formation et de perfectionnement. La Direction a administré et coordonné la participation des employés du Ministère à des cours de formation et de perfectionnement organisés par la Commission du service civil: administration publique, amélioration de la gérance, administration des bureaux, comptabilité industrielle, conversation française, cours d'instructions professionnelles et techniques offerts par d'autres organismes gouvernementaux et par des entreprises privées sur les divers aspects de la construction et de la gestion d'immeubles.

On a fait des progrès dans la mise en oeuvre d'un programme détaillé et complet sur la prévention des accidents au Ministère. On a distribué de la documentation, formé des comités de sécurité dans les régions de Toronto et d'Ottawa; à d'autres endroits le personnel a manifesté un intérêt croissant.

SERVICE DU CONTENTIEUX

Par suite d'une augmentation du volume d'affaires judiciaires relatives à l'exécution des tâches du Ministère, le nombre d'avocats au Contentieux est passé de 3 à 5 au cours de l'année. Les fonctions générales du Contentieux consistent à interpréter les statuts et les règlements, à rédiger et à examiner les documents juridiques, à servir de conseil pour les réclamations faites en vertu de la Loi sur la responsabilité de la Couronne, à acheter ou exproprier des terrains pour les travaux publics et à conseiller le Ministère en rapport avec les demandes faites en vertu de la Loi sur la protection des eaux navigables, la Loi sur les chemins de fer et la Loi sur la Commission nationale de l'énergie.

Au cours de l'année, le Contentieux a reçu et classé 412 titres de propriété relatifs à l'acquisition de 404 parcelles de terrain. Il s'est occupé d'environ 225 réclamations pour dommages causés par la Couronne ou à la propriété de celle-ci, et il a étudié 394 projets ratifiés et déclarations faites en vertu de la Loi sur la protection des eaux navigables, la Loi sur les chemins de fer et la Loi sur la Commission nationale de l'énergie.

D'autres secteurs du Ministère ont assumé certaines fonctions relatives à la rédaction des formules classiques pour les contrats de construction, les baux et les renouvellements, ainsi que les requêtes au conseil du Trésor ou au gouverneur en conseil.

DIRECTION DU PERSONNEL

Au cours de la période de 12 mois qui a pris fin le 31 mars, le nombre d'emplois au Ministère est passé à 10,396, soit une augmentation de 1,188 due à des fonctions plus nombreuses, y compris la responsabilité pour l'exploitation et l'entretien du réseau routier du Nord-Ouest ainsi que l'administration des anciens établissements militaires à Fort Churchill (Man.) et à Fort Peppercell (T.-N.).

L'administration centrale a consacré beaucoup de temps à l'initiation graduelle du personnel chargé des réseaux routiers de Fort Churchill et du Nord-Ouest. Son attention spéciale à ce sujet a été motivée par l'étendue des travaux en cours, l'isolement et le fait que ces travaux différaient des fonctions traditionnelles du Ministère. De concert avec la Direction, la Commission du service civil a continué de voir à la classification et au recrutement dans les autres sphères d'activité du Ministère. Le tableau suivant donne une idée des tâches administratives se rapportant au personnel :

Nominations	1,214
Départs	1,239
Concours annoncés	282
Demandes faites à la CSC	954
Certificats de traitement	9,266
Certificats de long service	252
Certificats médicaux	4,440
Réclamations pour accidents du travail	1,152

La Direction a envoyé des représentants à tous les appels formels déposés au cours de l'année devant la Commission du service civil. En voici les résultats :

NOMBRE	1	27	—	—	4
REÇUS	1	3	—	—	4
ACCEPTÉS	1	1	—	—	3
REJETÉS	27	3	—	—	1
RETIREZ OU AUTREMENT RÉGLÉS	4	2	1	—	1

On a complété des enquêtes sur l'organisation ainsi que des études sur la classification dans les Divisions des opérations et des terrains (Direction de la classi-

La Direction a mis sur pied un organisme gouvernemental pour le concours international patronné chaque année par l'Association nationale de prévention des incendies. Un total de 218 participants se sont inscrits au concours, dont 107 employés du ministère des Travaux publics. Deux participants ont mérité des trophées internationaux: Dominion Public Building, à Toronto, et l'Hôpital Lancaster, au Nouveau-Brunswick.

Le bureau du Commissaire fédéral des incendies a distribué 3,000 exemplaires de son 43^e rapport annuel sur les pertes causées par l'incendie au Canada. Les organismes fédéraux, provinciaux et municipaux, les autorités de gouvernements étrangers et les bibliothèques de consultation s'intéressent beaucoup à ce rapport.

La Direction a nommé un de ses membres comme prévôt d'incendie et l'a chargé de veiller à l'exécution de l'Ordonnance sur la protection contre l'incendie dans le Yukon et dans les Territoires du Nord-Ouest. Accompagné de son adjoint, le prévôt a visité 50 communautés, approuvé les plans de 82 nouveaux projets, y compris ceux du gouvernement fédéral dans les Territoires, et donné 12 séries de cours aux directeurs et aux membres de services d'incendie.

SERVICES D'INFORMATION

Les Services d'information ont été réorganisés au cours de l'année. On a pris des mesures visant à faire mieux connaître les fonctions du Ministère et on s'est beaucoup servi de tous les moyens de communication.

Les bureaux régionaux ont collaboré avec la Division afin d'assurer des relations cordiales avec le public local. Dans tous les coins du pays, des représentants du Ministère ont participé avec succès à plusieurs inaugurations d'édifices et d'ouvrages publics, ainsi qu'à d'autres cérémonies marquant la pose de la pierre angulaire ou la levée de la première pelleée de terre. Ces fonctions variées ont eu lieu en moyenne une fois par semaine au cours des douze mois.

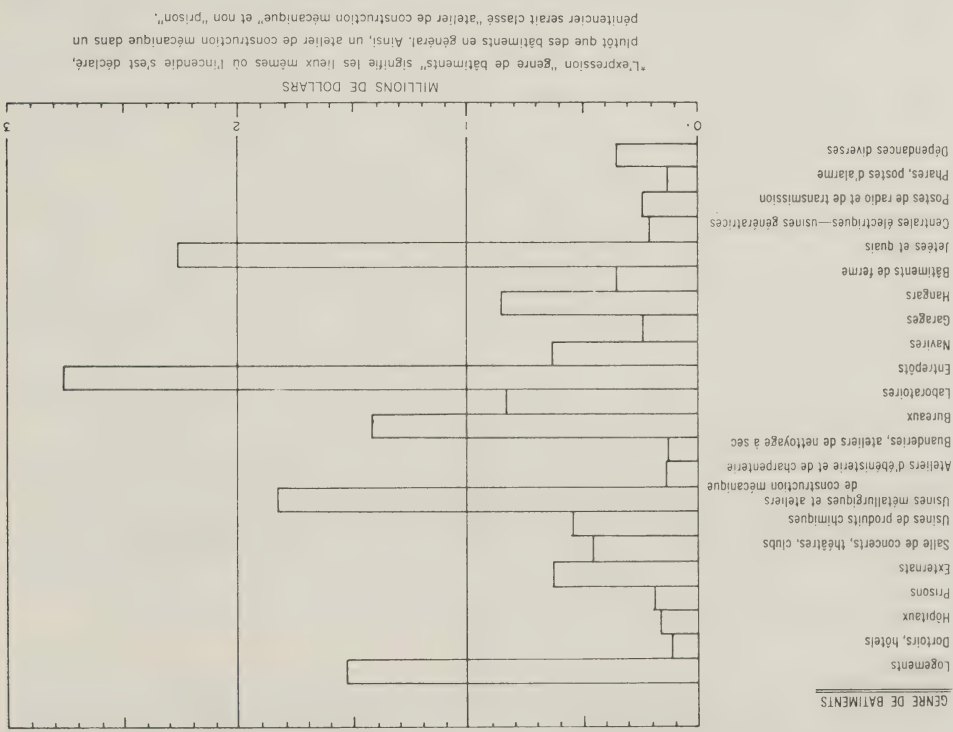
On a rédigé quelque 300 communiqués de presse, dont plusieurs étaient accompagnés de perspectives et de photographies annonçant l'adjudication de contrats et informant le public au sujet de nominations et d'événements importants. On a également publié des photographies illustrant le domaine varié des entreprises du Ministère. Les réseaux de télévision et de radio ont fait l'objet d'une attention spéciale. La Division a arrangé des entrevues avec les fonctionnaires ministériels et s'est chargée de ses responsabilités générales en répondant à une foule de questions et de requêtes en provenance des organismes d'information et du grand public.

On a décidé de changer la couverture de "La Dépêche", revue du personnel publiée quatre fois l'an, soit le printemps, l'été, l'automne et l'hiver. Afin d'éviter la surabondance d'articles sur les événements qui surviennent à l'administration centrale, les rédacteurs se sont efforcés de donner plus de publicité aux bureaux régionaux. Les hauts fonctionnaires ont pu se prévaloir d'un service de coupures qui s'alimente continuellement à 35 quotidiens le langage français ou anglais et 30 revues mensuelles.

A cause de la durée extraordinaire de la deuxième session du 26^e Parlement, notre section des documents parlementaires a fourni un nombre record de réponses écrites à des demandes inscrites au Feuilleton de la Chambre des communes. Sur un total de 3,078 questions posées aux ministres de la Couronne, 416, soit presque 15 p. 100, s'adressaient au ministère des Travaux publics. La Division a de plus classifié nombre d'ordres de dépôt de documents et fourni les réponses aux questions verbales formulées dans l'enceinte même des Communes.

La bibliothèque du Ministère, dont la responsabilité incombe à la Division, a prêté en moyenne 310 ouvrages par mois; dans le même temps, la circulation des périodiques a atteint 2,150 unités. La bibliothèque renferme 17,800 livres et périodiques catalogués et mis à la disposition du personnel, la plupart de caractère technique.

GENRE DE BATIMENTS* OÙ DES PERTES DE \$100,000
OU PLUS ONT ÉTÉ CAUSÉES PAR DES INCENDIES
AU COURS DE LA DÉCENNIE 1955-1964
(À L'EXCLUSION DU MINISTÈRE DE LA DÉFENSE NATIONALE)



*L'expression "genre de bâtiments" signifie les lieux mêmes où l'incendie s'est déclaré, plutôt que des bâtiments en général. Ainsi, un atelier de construction mécanique dans un pénitencier serait classé "atelier de construction mécanique" et non "prison".

Au cours de l'année, la Direction a examiné les plans de 349 nouveaux projets de construction afin de déterminer les exigences relatives à la protection contre les incendies, et elle a rédigé 19 devis portant sur les installations de protection contre les incendies. En plus d'examiner 423 rapports d'inspection présentés par les autorités provinciales et municipales, la Direction a aussi fait 132 enquêtes techniques sur un groupe de propriétés importantes, particulièrement les immeubles d'institutions et les ouvrages de grande valeur.

On a publié une Norme technique de protection contre les incendies et un Bulletin d'information technique, ce qui fait un total de 15 normes et de 24 bulletins en circulation à l'heure actuelle. Les normes sont préparées à l'intention des architectes et ingénieurs chargés de la conception et la construction des édifices et ouvrages du gouvernement. Les bulletins sont une source unique de renseignements sur des aspects particuliers de la protection contre les incendies. Vu que la portée et les exigences des normes sont originales, elles sont reconnues en dehors du Canada et constituent la base des exigences de plusieurs codes du bâtiment, y compris le Code national du bâtiment publié au Canada.

Le programme de formation et d'éducation du personnel s'est poursuivi. Quel-que 500 employés ont assisté à vingt conférences et démonstrations sur les mesures de prévention des incendies et l'usage des appareils utilisés pour combattre les flammes. Plus de 100,000 fonctionnaires, soit à peu près la moitié de tout le service civil, ont participé à 568 exercices d'évacuation.

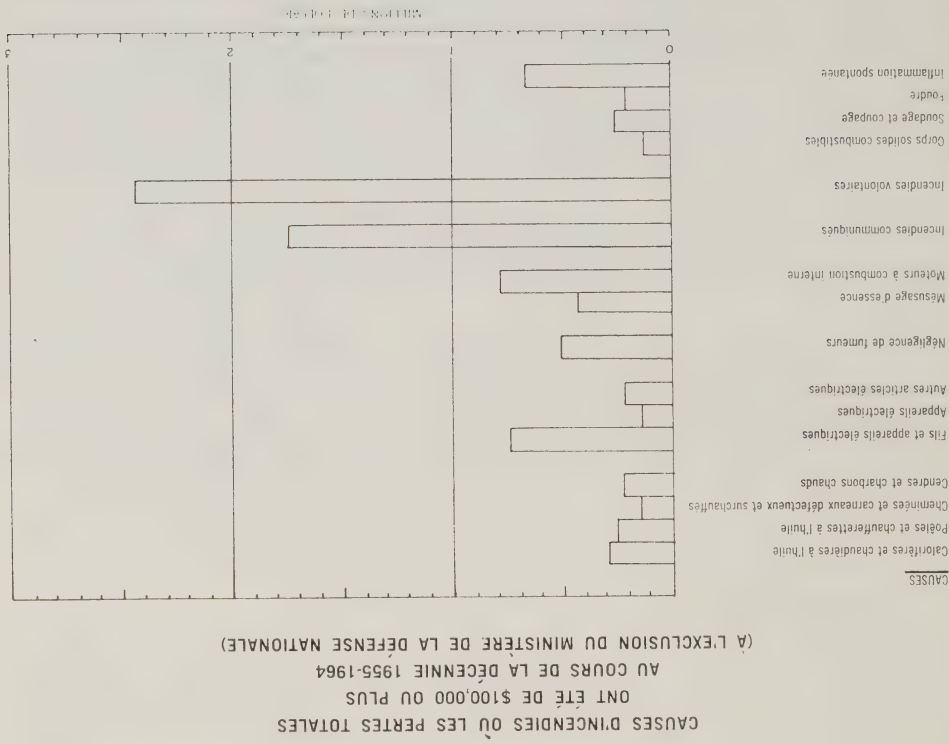
Cinq nouveaux titres de courts métrages ont été ajoutés à la liste de la filmothèque, laquelle a répondu à 1,349 demandes.

DIRECTION DE LA PRÉVENTION DES INCENDIES

Règle générale, la Direction de la prévention des incendies s'occupe des ministères et des organismes civils du gouvernement fédéral. Elle est chargée de préparer les exigences et les devis relatifs aux nouvelles constructions, de faire des enquêtes techniques sur la protection contre l'incendie, de déterminer les causes des incendies, de former des employés pour la prévention des incendies, et de publier les Normes techniques de protection contre les incendies ainsi que les Bulletins d'information technique.

Au cours de 1964, il y a eu 452 incendies dans les organismes tombant sous la responsabilité de la Direction, et les pertes se sont chiffrées par \$929,355 au total, comparativement à 543 incendies qui ont coûté \$3,586,379 au cours de l'année précédente. Etant donné que la valeur des propriétés en cause excède \$4,000,000,000, les chiffres de 1964 représentent un rapport d'un peu plus de \$0.02 par \$100 pour les pertes. En comparaison, le rapport moyen des pertes dans toutes les propriétés assurées au Canada est de \$0.29 par \$100.

Les tableaux suivants indiquent les lieux et les causes principales d'incendie au cours de la plus récente période de 10 ans :



du personnel des districts du ministère des Travaux publics et de la Société centrale d'hypothèques et de logement seront affectés à ces fonctions.

Pendant que les réunions provinciales avaient lieu, on continuait de rédiger un projet de manuel de planification d'urgence sur chacune des fonctions assignées aux provinces. On a fait tenir ce projet aux provinces afin qu'elles nous fassent part de leurs commentaires, et on a apporté la dernière main à plusieurs chapitres approuvés avant de les publier sous leur forme définitive.

SERVICES FINANCIERS

Au cours de l'année, la Division des Services financiers a étudié les moyens visant à améliorer les systèmes de vérification financière et de comptabilité adoptés par le Ministère, en cherchant particulièrement à mettre en oeuvre les idées et les recommandations de la Commission royale d'enquête sur l'organisation du gouvernement. À cette fin, on a pris des mesures initiales afin d'élaborer un nouveau système de rapports financiers conçus pour aider l'administration.

En général, la Division est chargée de coordonner et d'analyser les prévisions budgétaires du Ministère; elle met au point et applique des procédés de vérification comptable et budgétaire; enfin, elle a charge d'élaborer et de mettre en oeuvre des procédés relatifs à l'administration des contrats adjugés. La Division assure la liaison entre le conseil du Trésor, le contrôleur du Trésor et les autres ministères et organismes gouvernementaux.

Voici un aperçu des fonds dépensés par le Ministère. On trouvera des détails additionnels aux pages 48 et 49.

SOMMAIRE

CONTRIBUTIONS		CAPITAL		EXPLOITATION		TRANSFERTS		TOTAL	
A LA ROUTE		A LA ROUTE		A LA ROUTE		A LA ROUTE		A LA ROUTE	
TRANSCANADIENNE		TRANSCANADIENNE		TRANSCANADIENNE		TRANSCANADIENNE		TRANSCANADIENNE	
TOTAL		TOTAL		TOTAL		TOTAL		TOTAL	
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Les autres événements qui se sont produits au cours de l'année sont le transport au secrétaire de la régie des soumissions présentées au Conseil privé et au conseil du Trésor, de la charge de préparer les réponses inscrites au Feuilleton de la Chambre et de produire les documents mentionnés dans les motions adoptées par la Chambre des communes.

ETUDES ECONOMIQUES

Conformément à sa fonction principale, la Direction des études économiques a continué, au cours de l'année, d'étudier les projets d'entreprises publiques et de présenter des recommandations particulières à leur égard. Plus de 500 de ces projets lui ont été soumis et chacun d'eux a fait l'objet d'un avis.

La Direction a également évalué la croissance future de quelque 80 collectivités aux points de vue économique et démographique, en particulier dans des agglomérations métropolitaines où il importe de prévoir les besoins futurs touchant le logement. Le but de cette évaluation est de permettre la planification à la lumière des besoins à venir de localités individuelles. Ce travail a complété celui des représentants de la Direction au sein du Comité consultatif du conseil du Trésor sur le logement.

La Direction fait également partie du nouveau Comité consultatif du conseil du Trésor sur la construction maritime, établi en vue d'étudier les projets maritimes comportant des dépenses de la part du gouvernement fédéral. Elle est aussi membre de comités interministériels comme celui sur les travaux d'hiver.

Des membres de la Direction ont fait des enquêtes sur place dans des ports et secteurs particuliers en collaboration avec des fonctionnaires du ministère des Pêcheries dans les cas où les exigences portuaires étaient examinées à la lumière des avantages qu'elles apporteraient à l'industrie de la pêche. Le Groupe interministériel Travaux publics-Transports sur les ports canadiens, dont la Direction fait partie, a visité un certain nombre de ports et fait des recommandations à l'égard de problèmes portuaires particuliers à la suite de son enquête.

PLANIFICATION D'URGENCE

On a effectué un relevé de contrôle de tous les grands immeubles de l'Alberta afin de déterminer la quantité et la nature des abris contre les retombées disponibles en cas d'attaque nucléaire. Le but de ce relevé fait par la Direction du génie (aménagement), était d'établir des méthodes et des normes qui s'appliqueraient à un relevé analogue couvrant les immeubles de toutes les parties du pays. L'Organisation fédérale des mesures d'urgence a approuvé le relevé de portée nationale en février 1965, et a autorisé la Direction de la planification d'urgence à s'acquitter de cette tâche au cours des trois prochaines années. On a pris les dispositions nécessaires pour accroître considérablement le personnel de la Direction afin de faire face aux engagements au bureau central et dans les provinces.

La Direction est aussi chargée de la planification détaillée des fonctions du Ministère en temps de guerre et de la coordination générale des tâches en temps de paix, telles que celle d'assurer des locaux pour loger le gouvernement d'urgence central.

Comme on avait obtenu antérieurement l'assentiment général des autorités provinciales relativement à certaines responsabilités régionales ayant trait au travail du Ministère en temps de guerre, on a visité de nouveau la plupart des provinces afin d'établir les détails des fonctions déléguées suivantes : régir l'utilisation de tous les logements; assurer des logements à utiliser en cas d'urgence ainsi que les services d'utilité publique connexes; dispositions relatives à l'entretien et à la construction des routes et des ponts; régir les ressources des domaines de la technique et de la construction. En attendant l'établissement d'organisations régionales au sein des ministères provinciaux, les chefs exécutifs du ministère des Travaux publics dans les provinces ont dressé des plans d'exécution régionaux en vertu desquels des membres

terminé la préparation des plans des terminus de passage d'eau à Sydney, Port-aux-Basques et Argentiá.

En plus d'être chargée de la participation fédérale aux termes de la convention sur la route transcanadienne et de l'établissement des plans du passage de Northumberland, la Direction du génie (aménagement) a pris part à plusieurs entreprises spéciales. Elle a effectué la surveillance technique de travaux évalués à \$14,000,000 et exécutés en vertu du programme des routes vers les ressources pour le compte du ministère du Nord canadien et des Ressources nationales. Elle a également surveillé la réalisation de projets de \$80,000,000 pour l'Office d'expansion de la région atlantique.

La Direction de la construction des édifices a adjugé des contrats d'une valeur de plus de \$60,000,000. On a entrepris 395 projets au cours de l'année. Les travaux de 346 des nouveaux projets et de 126 projets entrepris antérieurement se poursuivaient au 31 mars. Bien que 290 des contrats comportaient la construction d'édifices fédéraux, ils ne représentaient qu'un peu plus du quart de la valeur totale des contrats. Le plus important poste unique des dépenses pour les édifices était celui des pénitenciers. Dix-sept contrats représentaient 40.97 p. 100 de la valeur des contrats des édifices. Les travaux relatifs aux pénitenciers font partie d'un programme qui coûtera \$70,000,000 en tout d'ici 1967.

Les mentions décrites par le ministre des Travaux publics pour des travaux d'architecture ont été présentées pour la première fois aux sociétés d'experts-conseils qui ont conçu tous les types d'immeubles pour le Ministère entre 1961 et 1964. Une autre innovation destinée à relever l'aspect des édifices publics est la décision du gouvernement de permettre qu'un certain pourcentage de la valeur des nouveaux immeubles soit affecté à l'inclusion d'œuvres d'art dans leur conception.

De toutes les entreprises de l'année, celle qui aura probablement les conséquences d'une plus grande portée est la décision d'effectuer une enquête sur la gestion de tout le Ministère tant au bureau central qu'aux bureaux régionaux. On compte que l'enquête, qui est divisée en trois phases, résultera en des méthodes de modernisation de l'organisation du Ministère en accord avec sa responsabilité croissante en tant que principal projecteur, constructeur et gardien des biens publics.

SECRETARIAT ET SERVICES ADMINISTRATIFS

On a confié au secrétaire du Ministère la double responsabilité des formalités relatives aux contrats et des divers services administratifs rendus à d'autres directions. Les deux sphères ont accusé une augmentation au cours de l'année.

La Direction s'occupe de la surveillance des formalités que comportent les contrats depuis la demande de soumissions jusqu'à leur exécution complète. Bien qu'on ait autorisé les bureaux régionaux à demander des soumissions pour les contrats jusqu'à concurrence de \$25,000, c'est à la Direction qu'il incombe de voir à leur adjudication.

Au cours de l'exercice financier, le secrétaire a détaché en public 1,904 soumissions pour 422 projets de plus de \$25,000 chacun. Pendant la même période, le nombre de contrats adjugés a augmenté d'environ 67 p. 100 pour atteindre 1,307 à côté de 779 l'an dernier. Ces contrats en comprenaient 381 pour des projets d'architecture, 513 pour des projets de génie, 263 pour des projets relatifs à la gestion des immeubles et 150 contrats non classés qu'on a rédigés et envoyés aux entrepreneurs, mais non signés par le Ministère. Un comité formé de membres de toutes les directions a été établi en vue d'étudier les méthodes et les exigences relatives aux soumissions. Son rapport est terminé et on est d'avis que la mise en oeuvre des recommandations en tout ou en partie hâtera l'achèvement des documents des contrats.

La Direction a également été chargée de l'établissement d'un bureau d'enregistrement des contrats pour garder en sûreté les documents et les ententes du Ministère relatifs aux contrats.

RAPPORT SUR L'ANNÉE FINANCIÈRE TERMINÉE LE 31 MARS 1965

Introduction

Tous les secteurs des nombreuses réalisations du ministère des Travaux publics ont fait de rapides progrès au cours de l'exercice financier. L'accélération de ses fonctions normales et des projets spéciaux entrepris pour le compte d'autres ministères a entraîné des dépenses s'élevant à presque \$75,000,000 de plus que l'an dernier.

Les dépenses totales ont atteint \$259,786,897.52 en comparaison de \$184,789,304.01 en 1963-1964. Elles comprenaient \$35,276,545.52 pour des projets spéciaux exécutés pour le compte d'autres ministères, à côté de \$29,946,597.97 pour l'année précédente. Environ deux tiers des fonds fournis par d'autres ministères étaient destinés à la construction d'édifices à fins particulières autres que les locaux à bureaux généraux pour lesquels le ministère des Travaux publics fournit l'argent nécessaire. Des \$224,510,352 dont le Ministère était comptable directement, \$64,112,591 se rapportaient à des travaux de construction, \$76,085,112 à des contributions aux provinces aux termes de la convention sur la route transcanadienne et \$84,312,649 à des frais d'administration.

La moitié des travaux de construction comportaient des édifices, le reste étant des ouvrages maritimes, des routes et des ponts. Les provinces de Québec et de Terre-Neuve ont profité le plus de l'entente relative à la répartition des frais de la route transcanadienne, la première touchant \$32,048,994 et la seconde \$22,766,219. Les services du logement ont coûté \$55,643,081 du montant imputé aux frais d'administration. Le Ministère fait sentir sa présence dans toutes les parties du pays par la responsabilité qu'il assume de plus de 4,000 ports, 3,000 immeubles et des milliers de milles de route. La grandeur des projets varie depuis n'importe lequel des 72,000 commandes pour des travaux de peu d'importance, émis au cours de l'année par le surintendant des édifices du gouvernement à Ottawa, jusqu'à l'établissement des plans du passage du détroit de Northumberland entre le Nouveau-Brunswick et l'île du Prince-Édouard, qui peut coûter \$150,000,000.

Le personnel a augmenté de près de 1,200 pour atteindre 10,396. Cette forte augmentation est le résultat direct des nouvelles attributions confiées au Ministère. Les nouvelles responsabilités comprenaient l'exploitation et l'entretien du réseau routier du Nord-Ouest et l'administration des anciens établissements militaires à Fort Churchill (Manitoba) et à Fort Repperell (Terre-Neuve).

La Direction du génie (ports et rivières) a mis la dernière main à sa modernisation de \$17,000,000 du port de Saint-Jean (Terre-Neuve) et va de l'avant avec d'autres projets d'égale importance, dont le plus digne de mention est l'établissement en cours des plans ayant trait à l'aménagement d'un port à Belledune Point (Nouveau-Brunswick). Le Ministère partagera avec le Conseil des ports nationaux et des sociétés industrielles les frais d'un port de \$15,000,000 qui desservira un nouveau complexe industriel d'une valeur de \$180,000,000.

La construction de l'ouvrage de retenue des glaces, au coût de \$13,000,000, dans le fleuve Saint-Laurent, à quelques milles en amont de l'emplacement de l'Expo 67, avance également. À la demande du ministère des Transports, la Direction a

Edmonton A. E. Cook
Vancouver R. J. Bickford

Direction de la gestion des immeubles

Directeur D. A. Freeze
Directeur adjoint E.-C. Martel
Agent de planification d'administration A. S. Archard
Chef de la division de l'administration des terrains D. H. Livingston
Chef de la division du logement H.-J. DePuyjalon
Chef de la division des opérations E.-W. Labelle
Chef de la division des services généraux P. A. Butterworth
Surintendant, MTP, Fort Churchill R. B. Angus

Gérants régionaux

Saint-Jean (Terre-Neuve) J. W. Pye
Halifax L. B. Campbell
Saint-Jean (Nouveau-Brunswick) R. S. Lawrence
Québec R.-L. Charpentier
Montréal G.-K. Aubut
Ottawa (capital nationale) W. M. Dicks (surintendant des édifices du gouvernement)
Ottawa (district) B. Payette
Toronto R. S. Fonberg
London R. Isted
Winnipeg A. Yule
Saskatoon K. C. Moffatt
Edmonton J. T. Gibson
Vancouver L. B. Gillespie
Whitehorse R. E. Fahey

Gérant outre-mer

London W. T. Rutherford

Direction du génie (aménagement)

Québec	G. LaJoie
Montréal	J.-P. Chevalier
Ottawa	P. W. Walters
Toronto	R. P. Henderson
London	G. N. Scroggie
Fort William	R. Seawright
Winnipeg	C. L. Davies
Edmonton	J. P. Livingston
Vancouver	A. W. Walkey

Ingénieur en chef	G. T. Clarke
Chef de la division du génie et de la construction	W. R. Binks
Chef de la division des ouvrages d'art	G. H. Foures
Chef de la division de la coordination technique et de l'administration	H. M. Millar
Surveillant du contrôle des programmes et de l'administration	G. Langlois
Chef des laboratoires d'essais	N. E. Laycraft

Ingénieurs régionaux

Terre-Neuve	A. L. Perley
Maritimes	H. A. Nason
Québec	J.-C. Beauchamp
Ontario	H. F. Peters
Manitoba et Saskatchewan	J. A. Platt
Alberta et Territoires du Nord-Ouest	R. Smillie (intérimaire)
Banff, Alberta	N. A. Huculak (intérimaire)
(parcs nationaux de l'Ouest)	B. G. Harvey
Colombie-Britannique	J. E. Kellett
Whitehorse, Territoire du Yukon	

Direction de la construction des édifices

Architecte en chef	J. A. Langford
Adjoint à l'architecte en chef	A. K. Mills
Adjoint à l'architecte en chef	W. A. Gibson
Chef, Administration exécutive	W. D. Egan
Architectes coordonnateurs —	
Immeubles à bureaux	E. G. Langley
Pénitenciers	D. H. Miller
Construction dans le Nord canadien	D. L. Turnbull
Laboratoires	W. N. Thomas
Projets spéciaux	W. H. Robinson

Architectes régionaux

Saint-Jean (Terre-Neuve)	L. W. Hopkins
Halifax	P. W. Vaughan
Saint-Jean (Nouveau-Brunswick)	C. H. Cullum
Montréal et Québec	P.-R. Martineau
Ottawa	R. F. West
Toronto	I. M. Saunders
Winnipeg	H. C. Tod

MINISTÈRE DES TRAVAUX PUBLICS

RÉPERTOIRE DU PERSONNEL

(au 31 mars 1965)

Ministre	L'hon. Lucien Cardin
Secrétaire parlementaire	G. R. McWilliam, député
Adjoint exécutif au ministre	R.-G. Geoffrion
Adjoint spécial au ministre	H. A. Langlois
Adjoint exécutif au sous-ministre	J.-C. Richard
Sous-ministre	George T. Jackson
Sous-ministre adjoint	G. B. Williams
Sous-ministre adjoint (technique)	
Directeur des services administratifs et secrétaire	Robert Fortier
Directeur des études économiques	C. J. Daly
Conseiller financier	L. P. Boyle
Chef des achats et approvisionnements	H. G. Hunt
Directeur des services d'information	W. H. Dumsday
Chef du personnel	J. F. Maxwell
Chef du contenu	Alban Garon
Services de gestion	R. E. Rodgers
Commissaire fédéral des incendies	R. A. Switzer
Chef, Planification d'urgence	E. W. Laver

Directeur de région

Edmonton

R. G. McFarlane

Chef exécutif et ingénieur

responsable du Yukon

W. Koropatnick

Direction du génie (ports et rivières)

Ingénieur en chef

G. Millar

Chef de la division des excavations

marines

Chef de la division de l'entretien

et de l'exploitation

C. K. Hurst

Chef de la division de la planification

et de la construction

J. E. Bright

Ingénieurs régionaux

Saint-Jean (Terre-Neuve)

G. E. Knight

Charlottetown

Halifax

Saint-Jean (Nouveau-Brunswick)

E. D. Manchul

D. F. Caven

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Sous-ministre.

LUCIEN LALONDE,

Votre obéissant serviteur,

J'ai l'honneur de vous soumettre le rapport annuel du ministre des Travaux publics pour l'exercice financier terminé le 31 mars 1965.

MONSIEUR,

A l'honorable Lucien Carlin, ministre des Travaux publics, Ottawa.

*A Son Excellence le major-général Georges Vanier, D.S.O., M.C., C.D.,
Gouverneur général et Commandant en chef du Canada.*

EXCELLENCE,

J'ai l'honneur de présenter à Votre Excellence le rapport annuel du
ministère des Travaux publics pour l'exercice financier terminé le 31 mars
1965.

Respectueusement soumis,

LUCIEN CARDIN,

Ministre des Travaux publics.

ROGER DUHAMEL, M.S.R.C.
Imprimeur de la Reine et Contrôleur de la Papeterie
Ottawa, Canada
1966

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rapport annuel

ministère des travaux publics



année financière terminée le 31 mars 1966

ministère des travaux publics **rapport annuel**



année financière terminée le 31 mars 1965

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annual report

fiscal year ending march 31, 1967



department of public works
annual report

fiscal year ending march 31, 1967



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*To His Excellency the Right Honourable Roland Michener,
Governor-General and Commander-in-Chief of Canada.*

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before your Excellency the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1967.

Respectfully submitted,
GEORGE J. McILRAITH,
Minister of Public Works.

The Honourable George J. McIlraith, Minister of Public Works, Ottawa.

SIR:

I have the honour to submit the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1967.

Your obedient servant,

LUCIEN LALONDE,
Deputy Minister.

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DEPARTMENT OF PUBLIC WORKS

DIRECTORY OF PERSONNEL

(As of March 31, 1967)

Minister.....	Hon. George J. McIlraith
Parliamentary Secretary.....	John B. Stewart, M.P.
Executive Assistant to the Minister.....	Lt. Col. Paul Hart
Special Assistant.....	A. E. Morin
Deputy Minister.....	Lucien Lalonde
Director, Special Projects.....	D. A. Freeze
Senior Assistant Deputy Minister (Operations).....	G. B. Williams
Technical Adviser	
(Northumberland Strait Crossing)	G. T. Clarke
Operations Officers —	
Atlantic Region.....	C. D. Stothart
Quebec Region.....	J. C. Richard
Capital Region.....	S. C. Ings
Ontario Region.....	Arnold Keehner
Western and Pacific Regions	H. M. Millar
Assistant Deputy Minister.....	G. T. Jackson
Assistant Deputy Minister (Program Planning).....	R. B. Whiting
Director, Accommodation Planning.....	Henry de Puyjalon
Director, Engineering Planning.....	C. K. Hurst
Chief, Departmental Planning.....	J. W. Bailey
Chief, Economic Studies.....	C. J. Daly
Assistant Deputy Minister (Design).....	J. A. Langford
Chief Architect.....	A. K. Mills (acting)
Chief Engineer.....	G. Millar
Chief, Accommodation Standards.....	E. G. Langley
Chief, Testing Laboratories.....	N. E. Laycraft
Director, Program Evaluation.....	H. D. McFarland
Director, Financial Services.....	L. V. McGurran
Director, Personnel Administration.....	W. F. Nelson
Director, Administrative Services.....	Robert Fortier
Director, Information Services.....	W. H. Dumsday
Dominion Fire Commissioner.....	R. A. Switzer

Atlantic Region (Halifax)

Regional Director	J. E. Bright
Manager of Operations	J. A. Brown
Chief, Financial & Administrative Services	I. M. Thomas
Chief, Personnel Administration	L. O. Pertus
District Directors —	
Newfoundland	G. E. Knight
Nova Scotia	D. Sutherland
New Brunswick	D. I. Higgins
Prince Edward Island	B. McLennan

Quebec Region (Montreal)

Regional Director	L. A. Deschamps
Manager of Operations	R. Leblanc
Chief, Personnel Administration	C. A. Boudreau
District Directors —	
Montreal	G. K. Aubut
Quebec	G. Lajoie

Capital Region (Ottawa)

Regional Director	E. C. Martel
Director, Property Management Services	A. D. Wilson
Director, Design Services	R. F. West
Director, Construction Services	G. A. Corriveau
Chief, Personnel Administration	J. J. Maingot

Ontario Region (Toronto)

Regional Director	E. D. Manchul
Manager of Operations	W. H. Robinson
Chief of Design	D. H. Miller
Chief, Financial & Administrative Services	E. Atkins
Chief, Personnel Administration	J. A. Good
District Directors —	
Toronto	R. S. Fonberg
London	J. M. Dunphy
Sault Ste Marie	C. L. Davies

Western Region (Edmonton)

Regional Director	R. G. McFarlane
Manager of Operations	R. B. Angus
Chief of Design	A. E. Cook
Chief, Financial & Administrative Services	G. I. Cameron
Chief, Personnel Administration	G. A. Pickell
Manager, Fort Churchill, Man.	R. G. Harding
District Directors —	
Manitoba	H. C. Tod
Calgary	A. L. Perley
Edmonton	P. W. Walters

Pacific Region (Vancouver)

Regional Director	W. Koropatnick
Manager of Operations	A. W. Walkey
Chief of Design	R. J. Bickford
Chief, Personnel Administration	J. B. Roe
District Directors —	
Vancouver, B.C.	W. W. Ryan
Whitehorse, Y.T.	R. K. Coates

GENERAL INTRODUCTION

The fiscal year 1966-67 was one of unusual significance for the Department of Public Works in that it saw the closing of one chapter of the department's historical development and final preparations for the opening of a new one. The functions and obligations of the department remain unchanged, but throughout the year efforts were directed to preparing the way for a new organization which would increase the overall efficiency of the department and interweave its functions more intimately with the varying regional needs of Canada.

Objectives of the reorganization were to delineate clearly the role of the Department of Public Works as a service agency to other government departments and to decentralize operations to the greatest possible extent.

A comprehensive study of the department's organization in the light of the recommendations of the Glassco Commission had been made in 1965 by a firm of management consultants. The actual process of reorganization, based on the findings of the consultants, began early in 1966 and occupied the subsequent entire fiscal year, resulting in the phasing out of the old organization by the March 31, 1967, deadline.

This meant activating certain areas of the new organization well before the designated changeover date. For example, the new Program Planning Directorate was brought into being early in 1967 in relation to the determination and development of the 1968-1969 departmental program.

The reorganization period was, of necessity, a difficult and trying one, involving the appointment and relocation of personnel, familiarization with new procedures and the working out of new operational and managerial systems in minute detail. At the same time, the regular operations of the department had to be maintained.

Despite the difficulties, the department attained a new peak of accomplishment during the year. The volume of construction, for example, reached \$340,421,716, as compared with a total of \$322,122,983 during the 1965-66 fiscal year, itself an all-time record year.

Contracts for 1,202 projects, valued in excess of \$5,000, were awarded by the department. Although the number of projects advertised showed a decrease of eight percent from the number advertised in the previous fiscal year, tenders received increased by approximately 20 percent, indicating a healthier competitive situation than had existed in the previous two or three years.

The 288 contracts related to building construction represented an increase over the previous fiscal year's figure of 259. Contracts totalling 459 were awarded for harbor and rivers works, 48 for development engineering works, including highways, and 407 for property and building management operations.

The major award of the year was the \$31,848,000 main contract for the National Arts Centre in Ottawa. An \$8,220,000 contract was awarded for the

construction of a complex of laboratories for the Department of Energy, Mines and Resources, on the Corkstown Road site in Ottawa's western outskirts. A \$7,594,000 award was made for a maximum security institution at Ste. Anne des Plaines, north of Montreal. Harbor development accounted for a \$5,333,313 contract for breakwater construction at Belledune, N.B., and a \$4,995,005 contract for the construction of a breakwater and wharf approach at Matane, Que.

As a result of the reorganization of the department on the basis of planning, design and operations, rather than the type of work, certain of the department's branches are presenting their annual reports in their accustomed form for the last time. With the closing of the fiscal year, these branches—Building Construction, Harbors and Rivers, Development Engineering, and property and Building Management ceased operation as separate entities within the department and their duties were largely distributed to six new regional headquarters across Canada. The regions, their approximate geographical boundaries and their headquarters are:

Pacific Region, serving British Columbia and the Yukon Territory—Vancouver;

Western Region, comprising the Prairie Provinces and most of the Northwest Territories—Edmonton;

Ontario Region, covering the province except for a portion of the Ottawa Valley area—Toronto;

Capital Region, extending in a northwesterly direction from the St. Lawrence River between Gananoque, Ont., and the Quebec border, on either side of the Ottawa River to Noranda-Rouyn, Que.—Ottawa;

Quebec Region, including most of the province and Baffin Island—Montreal, and

Atlantic Region, embodying the provinces of New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland—Halifax.

Responsibilities transferred from headquarters to the regions as the fiscal year drew to a close included building, marine and engineering design, the calling and opening of tenders and the awarding of contracts up to \$1,000,000, where they are provided for in the estimates and are not of an unusual nature, the power to approve shop drawings and purchase of materials locally and the making of all payments, including progress payments through field offices.

Regional Directors, within their terms of reference, have authority to deal with claims on construction and other types of contract up to an established financial ceiling. On claims above that ceiling, they are responsible for preparing submissions to the Treasury Board. They are also able to approve extensions of contract completion dates, where justifiable, and to authorize changes in sub-contractors.

At headquarters in Ottawa, the Deputy Minister, as the department's chief executive, continues to co-ordinate the work of the department and to direct the carrying out of government policy.

His associates include a number of assistant deputy ministers, the first being the Senior Assistant Deputy Minister (Operations), among whose concerns is the efficient administration of regional and district offices. When the position was first established, he was in charge of the implementation team set up to bring the new departmental organization into being.

An Assistant Deputy Minister, Design, has the responsibility of developing standards for accommodation and engineering and is also required to carry out projects, such as the National Arts Centre and the proposed multi-million-dollar Toronto postal terminal, whose scope and complexity is beyond the resources of the regional offices.

Expert advice and support is given to other government departments in developing their construction programs by the Assistant Deputy Minister, Planning, who heads the Program Planning Directorate. This directorate consists of two main branches, one responsible for all accommodation planning and the other for all engineering planning. It not only provides advice and support to the many clients of the department, but also interprets the clients' needs to the other directorates and ensures that the requirements are met.

A primary objective of the department's new organization is the achievement of closer working relationships with client departments on one hand and the construction industry on the other. Geographical proximity of regional and district staffs to the department's projects should result in closer attention to local problems and greater ease in dealing with contractors, architects and consulting engineers, all of which, it is to be hoped, henceforth will result in greater operational efficiency.

SECRETARY AND ADMINISTRATIVE SERVICES

Volume of mail received was down 15 percent from the previous year and the number of new files opened in Central Registry was reduced considerably. This reduction was mainly the result of the delegation of the furniture requisitioning function to user departments direct to the Department of Defence Production. The records disposal program resulted in a saving of 2,174 cubic feet of filing space — the equivalent of 217 four-drawer filing cabinets, an increase of 64 percent over 1965-66.

Photographic Services reproduced 1,500,000 square feet of copy by white-print, blueprint, photostat and various other processes. Many photographs of building perspectives, charts, buildings in various stages of construction and accidents were taken for press releases and other purposes. In addition this section serviced 27 other government offices. Some 1,285,000 pieces of copy were produced in the copy unit.

Studies continued with respect to micro-reproduction of plans for construction projects. Plans of standard Post Office buildings were produced in half-size scale for tendering purposes.

The Requirements Office functioned as the liaison between District Offices and Headquarters in purchase matters requiring Headquarters approval. It was also employed in negotiating several hundred follow-up actions relating to District requirements. Its responsibilities included the continuation of negotiation with the Canadian Government Supply Service on requirement matters and the receipt, review, interpretation and distribution of contracts issued by Canadian Government Purchasing Services on behalf of the department.

Five directives were initiated and issued, pertaining to procedures on national contracts, safety helmets and various types of equipment.

During the year the Requirements Office reviewed and processed more than 8,000 requisitions; received 5,400 contracts on District requirements; reviewed, processed and distributed 1,300 contracts; reviewed 8,100 Districts local purchase orders; initiated 200 callups against standing offer agreements; reviewed 1,100 standing offer agreements received from the Districts on national contracts and initiated 800 direct actions by letter.

Equipment and Supply continued to requisition and supply general stationery, printed matter and office machines and equipment. The supply and inventory of standard office furniture became the responsibility of this unit during the year. This office continued also to co-ordinate departmental requirements for printing, duplicating and related services with the Canadian Government Supply Service, Department of Defence Production.

Administrative Services provided telecommunication facilities and passes to public buildings. This section was responsible also for motor vehicle control and mileage allowances in Headquarters areas.

ECONOMIC STUDIES BRANCH

The Economic Studies Branch assessed and made specific recommendations on more than 600 proposals in the fiscal year 1966-67.

Forecasts of economic and population changes were also made for some 110 communities, including a number of metropolitan areas, where accommodation for federal agencies was being considered. The objective was to facilitate planning to meet future community needs. This function is complementary to participation by the unit in the operations of Treasury Board Advisory Committee on Accommodation.

The unit is also represented on the Treasury Board Advisory Committee on Marine Construction, which reviews marine projects requiring federal outlays. It is represented, as well, on a number of continuing interdepartmental committees such as that on winter works, and the Public Works — Transport Interdepartmental Group on Canadian Ports.

Members of the Branch made special on-site surveys of several areas and individual harbors with officers of the Department of Fisheries in instances where

fishery-support requests were under study. In all of these cases specific recommendations were put forward.

EMERGENCY PLANNING

Work on the Fallout Protection Survey of Canada reached a peak in the summer of 1966, at which time a staff of approximately 300 were engaged in survey work from coast to coast. Most of the employees involved were student assistants, recruited by the Civil Service Commission at universities in all provinces with the exception of Alberta and Saskatchewan. The Alberta survey was completed in 1964, while the Saskatchewan survey was scheduled for 1967.

Good progress was made on the national project, with all survey work being completed in the Maritime Provinces. In British Columbia and Manitoba more than 80% of the work was accomplished. The Quebec and Ontario surveys were approximately 50% completed. Some 70,000 data recording sheets were completed in the field, and these are processed by the Central Data Processing Service Bureau.

A seminar on Accommodation Control at the Canadian Emergency Measures College was well attended by representatives from nine Provinces. This was followed up by visits to individual Provinces in an effort to stimulate planning. Liaison with provincial authorities in other emergency planning fields has also been pursued.

The Department participated at central and regional levels in Exercise Tocsin '66, which was a national exercise intended to test and improve the operational capability of government in an emergency. Attendance of senior officers at this exercise permitted a thorough review of responsibilities in the field of civil emergency planning.

FINANCIAL SERVICES

The Financial Services Division was responsible during the year for co-ordination and analysis of departmental estimates, development and implementation of accounting and budgetary procedures and the development of policies and procedures relating to contract administration. It represented the department on the Treasury Board Advisory Committee on Contracts and generally provided liaison with the Comptroller of the Treasury and the Treasury Board in financial matters.

During the latter part of the year members of the division began the development of financial systems in order to implement the new departmental organization, these providing for a delegation of authority and responsibility in financial matter to the Regional and District Offices.

FIRE PREVENTION BRANCH

The Dominion Fire Commissioner continued to exercise his responsibility for directing fire protection and fire prevention programs throughout all the civil departments of the Federal Government. In addition, members of his staff in their capacities of Fire Marshal and Deputy Fire Marshal of the Yukon and Northwest Territories, exercised a similar responsibility for all private and government property in those areas. On a consulting basis, work was also done for the National Harbors Board, Central Mortgage and Housing Corporation and the St. Lawrence Seaway Authority.

Fire losses during 1966 for agencies within the responsibility of the Dominion Fire Commissioner totalled \$532,870 in 375 fires. This compared favorably with losses of \$1,864,083 in 490 fires during the previous year. The 1966 loss figure represents slightly more than one cent per \$100 of property compared with the average dollar-loss ratio of 30 cents per \$100 for all insured property in Canada.

As part of its expanding consulting engineering service, the branch studied plans for 350 projects and forwarded requirements to the departments concerned. In addition, almost 20 detailed specifications of fire protection installations were drawn up.

Engineering surveys were made of 89 important selected properties such as airports, penitentiaries, Indian residential schools, atomic energy plants and national parks. The branch also received and processed 575 inspection reports submitted by provincial and municipal fire authorities and other government agencies.

As a result of the work done by interdepartmental technical committees in liaison with private agencies, four major new Fire Protection Engineering Standards were published: emergency lighting systems; grain elevators; records storage; and welding and cutting operations. These standards are all original in scope and requirements and it is anticipated that they will receive international recognition and form the basis of requirements for many national codes.

The program of employee instructions and training was maintained. In addition to lectures and demonstrations in fire prevention procedures, two complete fire prevention and fire protection courses were given to project personnel before departing to remote locations. In all, approximately 125,000 civil servants were again involved in fire drills carried out in government buildings.

The use of the film library, by both private and government agencies was maintained and some 1,250 bookings were effected.

In the Yukon and Northwest Territories, the Fire Marshal and his Deputy surveyed 38 communities, approved 78 plans of new projects and conducted 13 training schools for fire department officers and men. In addition, 246 Fire Marshal's orders and recommendations were served to eliminate hazardous conditions in buildings.

INFORMATION SERVICES

Information Services geared itself to the departmental reorganization to permit a two-way flow of information between headquarters and field units. Regional and district offices continued to co-operate with the directorate's aim of establishing good relations for the department at all levels.

Official ceremonies related to public projects were held in all parts of the country, with reports indicating that the success of these ceremonies added to departmental prestige.

Volume of press releases on newsworthy expenditures over \$25,000 increased over the previous year. The releases were well received and displayed by the news media. Thanks to co-operation of officials, the use of television and radio was expanded.

The Parliamentary Returns section provided replies to some 175 questions appearing on the Order Paper. More than 10 percent of all questions placed on the Order Paper during the year involved the department. The section was also responsible for filling numerous orders for production of papers requested by Members of Parliament.

The Departmental Library, a directorate responsibility, averaged 412 loans a month compared with 370 a year earlier. Individual circulation of periodicals rose to 2,246 a month from 2,100. The library now contains 18,744 catalogued books and bound periodicals, an increase of more than 500.

A branch library of 8,781 books and pamphlets at the Testing Laboratories averaged 250 loans a month and the periodicals circulated averaged 90 a month.

PERSONNEL

In addition to the normal Personnel workload, the entire departmental personnel service was reorganized to suit the general decentralization of the department. Major legislation in the personnel field was promulgated, the senior echelons of the reorganized department were selected and major classification programs were implemented.

The position of Director of Personnel Administration was established to provide policy direction from Headquarters through four functional chiefs specializing in employment and employee services, manpower planning and development, classification and compensation, and staff relations.

A relatively small headquarters personnel staff of 31 is planned.

During the year, Chiefs of Personnel were appointed in each of the six decentralized Regions, and were actively recruiting their support staffs. It is intended to appoint a Personnel Administrator in each District to provide personnel services to the District Director.

Concurrent with the reorganization described, the Personnel Directorate and the Regional Personnel Chiefs developed interim operating systems to provide policy guidance to the newly appointed line managers in the field, and these will be amended as regulations under the new legislation are made.

The Staff Relations Division began its function in the second half of the year as collective bargaining legislation reached the final stages. In addition to the development of a grievance process, the division identified a departmental code of discipline and delineated management's conception of appropriate bargaining units within the department. At the close of the year, the division began to make detailed plans for contract administration with respect to operational category employees for whom certification was anticipated.

New classification programs were implemented for the majority of occupational categories in the department. The heavy volume of classification work was increased by the need to classify positions in both the old and the new organizations. The bulk of this work was accomplished during the year — with a very low frequency of red-circled positions and appeals.

Normal departmental employment and services functions were carried out under difficult circumstances. In addition to the normal workload, it was necessary to make selections for several hundred senior positions in the new organization and this responsibility was carried entirely by the department with authority delegated by the Civil Service Commission. The success of this operation may be measured in part by the low frequency of appeals against appointments (four appeals, 500 appointments).

The massive selection operation was made possible by the development of a manpower inventory and appraisal system which was applied to intermediate and senior level officers. This program will be continued throughout the department and work will continue on the development of this system and companion systems for other groups of employees. In the future, increased emphasis will be placed on the development of "objectivity in appraisal and the development of accurate developmental plans for employees."

The Division also undertook the development of a comprehensive system whereby departmental manpower needs and resources will be forecast.

PROPERTY AND BUILDING MANAGEMENT

The establishment of the Property and Building Management Branch in May 1954 emphasized the growing importance of property management as a function of the department. Its three operating divisions encouraged specialization respectively in accommodation (allocation and planning), maintenance including the provision of all building services) and land acquisition and disposal. A fourth division provided administrative support to the other three.

As a result of the departmental re-organization this branch has ceased to exist. However, its staff and functions have been re-distributed and continue

to support the department in its service role to other departments of the federal government. Many of this branch's programs continue unabated. For example, the continuing program of heating plant conversion is at a scale where annual reductions of heating costs are at an estimated level of \$340,000. These results are occurring with capital expenditures that are being returned through reduced expenditures within an average of 2.4 years.

A steady drop in the number of building service personnel is continuing as a result of a consistent program of buying interior cleaning services from private contractors for both old and new buildings. Examples of new buildings in Ottawa so cleaned under tenders advertised this year for the first time are the new National Library and the Sir John Carling buildings. Older Ottawa buildings include Nos. 2, 3 and 4 Temporary buildings. As cleaning staffs are reduced by separation or retirement they are regrouped to permit private tenderers to take over entire buildings.

Equally the new organization will continue to apply the techniques developed in the branch in the accommodation field. Forward planning for new construction at a pace in harmony with the government's fiscal policies has been an important contribution. During the year 90 or so of such accommodation problems were analysed and solutions recommended involving 2,750,000 square feet of new accommodation.

In the major urban areas, large scale reorganization of federal departments, involving both new and extended programs, the widespread trend to decentralization of authority to regional headquarters, and, in some cases, the substitution of a regional headquarters for a number of local district offices, have involved a massive shift of personnel and, in consequence, accommodation, on an unprecedented scale. No fewer than 100 such major relocations have arisen, additional to the many hundreds of normal minor changes.

Leasing, as a supplement to crown-owned resources, continues to be a significant workload. Substantial increase in the total expenditures for rents during the year reflects both an absolute space increase and an up-grading of the quality of leasehold quarters. Only minimally are increases due to higher rates alone.

Effective July 1, 1966, the department accepted responsibility for provision of accommodation for new Grade 1 and 2 post offices established across the country by the Post Office Department. Approximately 400 locations were affected under the new classification.

More than 100 post offices were already located in accommodation provided by the branch. Short-term temporary lease agreements were negotiated at other locations pending studies to determine the adequacy of the premises for continued long term postal occupancy or the need for more adequate accommodation by leasing or Crown Construction.

About 150 Revenue Post Offices were selected for inclusion in the Winter Works Program for 1966-67, at a total estimated cost of \$3,000,000. This was

expected to generate a total of 750,000 man-hours of work, including about 300,000 man-hours during the peak period of winter unemployment.

The administration and maintenance of the department's pools of housing at 12 northern locations continued to be an important branch responsibility.

An additional 57 units of married living quarters were acquired during the fiscal year. The branch was successful in avoiding Crown construction in the case of 40 units which were leased from private builders in conformity with the Government's policy of encouraging private entrepreneurial investment in the northern areas. Considerable expenditures were made during the winter months to renovate and improve single staff accommodation in certain barracks type buildings in Whitehorse, Y.T., and Fort Churchill, Man., which had originally served to house military personnel. These buildings are being converted to provide more self-contained single units, as an aid to recruiting for those departments with programs involving northern postings.

The Lands Division of the old Branch (now attached to the Operations Branch) is responsible for the acquisition and disposal of properties on behalf of the Department of Public Works, as well as other client departments that use Public Works property purchasing facilities.

Some 698 sites were acquired during the fiscal year at an anticipated final cost of approximately \$4,872,000.

In addition to the foregoing there are approximately 1,100 sites in various stages of completion at an estimated final cost of some \$16,000,000.

It is also the responsibility of this division to advise client departments with regard to disposal procedures, assist in obtaining independent appraisals and advise as to the fair market value of sites that client departments may wish to obtain. During the fiscal year some 225 properties were declared surplus to Crown Assets Disposal Corporation.

The department provided assistance during the fiscal year to 16 other departments or federal agencies.

In addition to actual land purchases, the division was responsible for the arrangement of easements, exchanges and other property transactions in conjunction with municipal and provincial governments.

HARBORS AND RIVERS ENGINEERING BRANCH

The Department's Harbors and Rivers Engineering Branch has been the agency chiefly responsible for the construction and maintenance of federal marine works. This included the provision of wharves, breakwaters, navigation channels, shore protection works, graving docks, locks and dams. There are more than four thousand of these works across the country. The branch also built and operated certain items of dredging plant and supporting vessels on both coasts.

Expenditures for new construction, repairs and maintenance on both works and floating plant totalled over \$38,000,000 in 1966-67.

An extensive program of marine works has been undertaken for other government departments.

Several major projects were underway in Newfoundland on behalf of the Department of Transport. These consisted of a continuation of the development of ferry terminal facilities at Port aux Basques and Argentia. Additional works on behalf of Transport were carried out at Marystown where a marine haulout of 1,000-ton capacity is being constructed.

A large construction program on behalf of the Department of Fisheries was undertaken. This included reconstruction of several bait depots and the construction of numerous holding units and community stages. Altogether 45 projects were carried out for Fisheries.

The branch was involved in 16 Atlantic Development Board projects consisting primarily of fresh-water supply systems for fish plants in Newfoundland.

Three major harbor works at Botwood, Grand Bank and Fortune were continued through 1966 by the department. The estimated cost of the three totalled more than \$3,000,000.

Work was carried out on another 35 Newfoundland projects ranging in cost from \$50,000 to \$800,000 and covered reconstruction, repairs and improvements. In addition, maintenance and small new projects were carried out at some 270 different sites.

Under Departmental appropriations work was undertaken at 25 Nova Scotia sites involving expenditures greater than \$50,000. Under \$50,000, work was carried out on 213 maintenance jobs, 56 minor improvements and 74 dredging projects. In addition, 10 dredging projects were carried out by departmental plant.

Major projects in support of the fishing industry were continued at Canso and Lower East Pubnico. A large wharf extension project was started at Mulgrave, for ships carrying cargo to Newfoundland as well as other shipping.

Work continued on the large ferry terminal development projects at North Sydney, for which funds are provided by the Department of Transport. The estimated total cost of the marine works involved is approximately \$8.5 million and substantial completion is scheduled for late 1967. The project will include the construction of a new public wharf, two new end-loading docks, railway marshalling yards, parking compounds, road improvements and an administration building.

Major improvements and repairs were carried out in Prince Edward Island at four harbor sites involving expenditures greater than \$50,000. In addition, maintenance and improvements were undertaken at approximately 100 sites at individual costs less than \$50,000.

Departmental dredging plants were fully occupied during the year in the removal of some 180,000 yds. of material from harbor entrances, turning basins, etc.

In addition to the above, engineering services were provided to the Department of Fisheries, National Defence and Atlantic Development Board on planning, design and construction of eight P.E.I. projects.

Major construction and maintenance projects were undertaken at 20 harbor sites in New Brunswick. In addition, approximately 200 smaller works were undertaken.

Dredging was carried out at 35 locations involving the removal of more than one million cubic yards of material; the largest project involving the removal of more than 500,000 cubic yards from the channel into Courtenay Bay at Saint John.

Work started towards the end of the year on construction of the new multi-million-dollar harbor for bulk cargoes at Belledune Point. The first contract awarded was for breakwater construction and was in excess of \$5.3 million. Financing of the harbor facilities, estimated at \$13 million, is being shared between the department and the National Harbors Board.

Ferry landing facilities were completed at North Head and Blacks Harbor for the new Grand Manan ferry service and work continued on the major extension to the fishing harbor at Escuminac.

During the year over \$5 million was expended in the Province of Quebec on harbor works involving departmental funds. Of these projects 32 required expenditures greater than \$50,000, and more than 350 were at estimated costs less than \$50,000.

A contract was awarded for the construction of a large \$5 million breakwater at Matane, to provide protection for new harbor works and shipping operations planned for this site. The breakwater will be of rubble mound construction armored or covered with pre-cast concrete elements called tetrapods—the first major use of these units in Canada by the department.

Work was begun on the first stage of a major harbor improvement project at Rivière au Renard in Gaspé County. These works will represent the department's contribution to a large fishery complex at the site in collaboration with the local fish processing firm, A.R.D.A., the municipality and the province. A contract was also awarded for improvement work at Paspebiac to accommodate a new fish plant and fishing craft.

Four departmental dredge plants operating from Rimouski removed more than 125,000 cubic yards of material from small harbors in the Gaspé and Magdalen areas.

The first stage of development of a large harbor at Gros Cacouna was completed. This involved the construction of the north and south breakwaters and completion of an access road. The second stage was also started with the award of a dredging contract in the amount of \$3.8 million.

Under its marina policy the Federal Government participates in the development of new facilities for pleasure boat traffic. The department constructed a breakwater to protect the small harbor near Quebec City at Sillery. This was to be followed by dredging. Local interests are to provide the landing and service facilities.

Major improvements were carried out to the ferry terminal at St. Ignace de Loyola at an expenditure of slightly more than \$250,000.

Construction of an ice control structure upstream from the site of Expo '67 was completed at a cost of approximately \$15,000,000. The structure was transferred to the Department of Transport in October for management and control.

A total of 43 vessels used the department's dry docks at Champlain and Lorne during the year. Total occupancy was 1,040 boat days. Total tonnage through both docks was 227,000 gross tons.

During 1966-67 work was carried out on over 320 different projects in Ontario. Of these jobs 22 cost more than \$50,000 each.

On the upper Ottawa River a major rehabilitation and widening project was underway on the Ontario Dam at Temiskaming. The estimated cost is approximately \$1,300,000. The project except for minor site work, was essentially completed during the latter half of 1966. The dam controls water levels and flows not only for navigation but also for the generation of power and it serves as a foundation for the provincial highway crossing at the site. Cost of the work was shared with the Quebec and Ontario Hydros and the Ontario Department of Highways.

Pier reconstruction in Burlington Channel was continued, with work to be completed in 1967. The reconstructed piers are being designed for the new 29-foot canal depth. Widening of the approach channel to Pier 24 for Hamilton Harbor was completed and will serve a large new package freight terminal.

Planning was completed and a contract awarded for the development of a new harbor for small boats at Port Dover. The \$500,000 project was to serve the large number of fishing boats and other shallow draft traffic operating from this site.

The first stage of a new general cargo berth at Sarnia — acquisition of a large site and dredging of the berth area, together with the reclamation of adjacent land was completed.

A berthing wall and a transit stage represent future stages of the \$1,000,000 project.

A substantial maintenance and repair program was continued on harbor works at the Lakehead.

Work was started in Manitoba on major rehabilitation of the St. Andrews Lock and Dam and the Selkirk Marine Railway.

A new twin-screw pipeline tug vessel was constructed at Tiverton to assist the operations of one of the departmental dredges operating in Manitoba.

The department continued its far north dredging program for improving and maintaining the navigation channels on the Athabaska-Mackenzie Waterway System. In addition, wharf facilities along these rivers were maintained and some improved.

A large reconstruction job was carried out at Inuvik to rehabilitate the existing wharf. Improvements were also started on harbor works at Hay River, N.W.T.

In British Columbia 21 jobs each over \$50,000, were undertaken for an estimated cost of \$3,400,000. In addition, there were 110 separate contract and day labor works at a total estimated cost of \$4,900,000.

The two departmental dredges on the lower Fraser River removed over 2,500,000 cubic yards of material from the navigation channels in the river.

Maintenance and operation of the Esquimalt Graving Dock was continued throughout the year. Fifty-two vessels docked for repairs and maintenance with a tonnage totalling 374,000. The dock was occupied for 245 days.

The first stage of the Fraser River Trifurcation project was completed and a contract has been awarded for the second stage. Completion of the third stage is scheduled for 1969. The project involves the construction of a system of training walls to control the flow of the Fraser River at New Westminster. The purpose of the work is to reduce the natural shoaling, or sediment deposition in the navigation channels by increasing the flushing effects of the river currents.

During the year work continued on a study by departmental staff of the effect of fluctuations in water levels on the Great Lakes. This study is under the direction of the International Joint Commission. The study involves the assessment of effects of varying water levels on the more than 5,000 miles of Canadian shoreline around the Great Lakes. The entire study is scheduled for completion in 1970.

DEVELOPMENT ENGINEERING BRANCH

The Development Engineering Branch, with the preparation of the 1966-67 annual report of activities and accomplishments, concluded its final act as a branch within the old concept of branch structural responsibilities under the Department of Public Works.

FEDERAL PROVINCIAL HIGHWAY OPERATIONS

Trans-Canada Highway

The branch administers the Trans-Canada Highway Agreements which provide for the construction of a two-lane all-weather paved highway, the cost of which is shared by the federal and provincial governments. Activity on the Trans-Canada Highway during 1966-67 was mainly in the Atlantic provinces and

the Province of Quebec. Full details of progressive construction during the year, accrued commitments and payments made to each province are reported in the annual "Report of Proceedings under the Trans-Canada Highway Act".

Reconstruction of Highway No. 6 — Counties of Matane and Gaspé North

An agreement was signed on August 30, 1965, with the province of Quebec, whereby the federal government will contribute up to \$13,000,000 towards the reconstruction of a section of Highway No. 6 in Quebec approximately 86 miles in length along the north shore of the Gaspé Peninsula. In August, 1964, the government announced that after extensive study it had concluded that the road should be reconstructed in lieu of a railway authorized by parliament in 1962 between Matane and Ste. Anne des Monts.

Moncton-Buctouche Highway, New Brunswick

On April 21, 1966, an agreement was signed with the province of New Brunswick whereby the federal government will contribute up to \$1,250,000 towards the cost of constructing a new highway between Moncton and Buctouche, N.B., to replace the abandoned Canadian National Railway Buctouche branch line. Federal funds are provided by the federal Department of Transport.

Atlantic Development Board

The department provides engineering supervision and control for two highway programs in the Atlantic provinces, for the Bay d'Espoir Electric Power project in Newfoundland and for the Mactaquac Electric Power project in New Brunswick. These programs, which are sponsored by the Atlantic Development Board, involve an expenditure of federal funds totalling \$80,000,000. Details of progress during the fiscal year are provided in the annual report of the Atlantic Development Board.

Roads to Resources

The department provides engineering supervision and control for the Roads to Resources program sponsored by the Department of Energy, Mines and Resources. Details of progress during the year are reported in the annual report of that department.

Intraprovincial-Interprovincial and International Bridges

The department administers the operation and maintenance of six international bridges, eight interprovincial bridges and five intraprovincial bridges. During the past year, six intraprovincial bridges, previously administered by the branch were or were in the process of being transferred to provincial jurisdiction. The bridges transferred are: in the Province of Quebec, Berthierville, Calumet-Bryson, Chapeau, Notre Dame du Nord, Papineauville and in the Province of Manitoba, Shellmouth bridge.

The responsibility for maintenance and operation continued under the direction of the Department of Public Works. As in previous years, the system comprising *Northwest Highway System*

the 1,220 miles of the Alaska Highway, the 117 miles of the Haines Road plus the connecting access roads continued to receive the same standard of maintenance.

The observations carried out on the first year's operation of a three-year maintenance contract, covering 180 miles of road on the southern section of the Alaska Highway in the Province of British Columbia, have proven the efficiency of this form of contract. During the year the limits of the initial program were extended approximately 30 miles. It is also contemplated that a second contract for maintenance involving 196 miles adjacent to the current operation will be awarded before the end of the current season. This will extend the section of road in British Columbia under maintenance contract to mile 496.

Negotiations are underway with a view to the handover of the Yukon section of the highway to the Yukon Territorial Government, which will then act as agent to the Department for the maintenance of the remaining 166 miles on the British Columbia section. The present target date for handover is April 1, 1968.

The report on the economic benefits of paving the Alaska Highway tabled in Parliament in June 1966, expressed the opinion that paving is not justified at present. It recommends instead partial improvement program over the system. Both the engineering studies carried out by the department personnel, and the economic report are under review.

A contract for the construction of water supply facilities at Whitehorse, originally scheduled for award during 1966, was deferred due to inflated construction prices.

The winter maintenance of the Haines Road continued for the fourth consecutive season based on terms and condition similar to those previously in effect, with the State of Alaska.

Heron Road Bridge

The department, under a shared cost agreement, dated May 18, 1964, agreed to have the City of Ottawa proceed with the arrangements to construct a structure to span the Rideau River, Colonel By Drive and Rideau Canal in the vicinity of Confederation Heights. The first contract in this undertaking was awarded by the City during the 1964-65 winter season.

This three-lane twin pre-stressed concrete structure, was originally scheduled for completion in October of 1966. However, on August 10, 1966, while in the process of pouring concrete at the south structure the post-tensioned span suddenly collapsed causing the deaths of nine persons and injuring a number of others, as well as occasioning considerable damage to the site. An inquest was ordered into the reason for the failure with all work being discontinued for a period of five weeks. The North Bridge was to be completed and open to traffic by the summer of 1967, and the south side structure later in the year.

Northumberland Strait Crossing

Following the announcement by the Prime Minister in July of last year construction commenced on the combined causeway bridge tunnel project spanning

the Northumberland Strait. The initial contract, awarded in November 1965 for the construction of the approach highway and railway embankment in New Brunswick is completed. The erection of an overpass at Murray's Corner was in progress in the same province.

Construction on the Prince Edward Island approach road and railway embankment was started during the year and scheduled for completion late in 1967.

Because of the tremendous technical difficulties both in engineering and construction on a project of this magnitude a technical briefing session was convened on July 4, 1966 at Charlottetown, Prince Edward Island. The department endeavored to inform all interested parties about the elements to be constructed so they would be in a better position to appraise their respective capabilities to deal with the project.

Trans-Canada Highway—National Parks

Glacier National Park is the only area in which items of work were carried out. An avalanche defence program consisting of extension and improvement to existing developments was in progress. A start was made during the year on the final paving of the 27 miles of the Trans-Canada Highway within the park.

Primary and Scenic Roads—National Parks

General

The branch continued the program of highway reconstruction in the National Parks on behalf of the Department of Indian Affairs and Northern Development. By the end of the current season surveys involving 500 miles and the construction of over 350 miles of road will have been completed in various parks. It is estimated that by March 31, 1967, a total of \$72 million will have been invested in the highway reconstruction program in the National Parks throughout Canada.

Western Parks

The first stage of construction on the Jasper-Yellowhead Highway was virtually completed including the erection of the Miette, Clairvaux and Meadow Creek bridges. The construction of the last 10 miles of new grade scheduled for completion in 1967 on the Jasper-Edmonton route will complete the development of this first class highway.

The reconstruction of the 145-mile section of the Banff-Jasper Highway was nearing the final stages with only minor work remaining to be carried out. This highway provides some of the most scenic panoramas in the North American Rockies.

Construction continued on the highway to the tourist recreational area at Maligne Lake. Two significant grading contracts covering 3.9 and 4.4 miles were underway on the Maligne Lake route, including the construction of three bridges and, in all cases, work was reported to be in final stages. A separate contract for

the construction of the Maligne River Bridge is considered to be completed except for painting of hand rails and general clean up.

Construction of 11.5 miles of access road to the summit of Mount Revelstoke in Revelstoke National Park was nearing completion.

Miscellaneous Projects

A contract for improvement to Jasper Townsite streets and services got underway during the year in Jasper National Park. Construction was proceeding on the Whitehorse Access Road and Mount Temple connector road in Banff National Park, including car parking area, with all the work being carried out under a single contract.

Eastern Parks

Work in the Eastern part of Canada has been limited to the area recently established as Kejimikujik National Park in the province of Nova Scotia. Here grading activities covering seven miles of new alignment were expected to be completed by 1967.

Development Roads—Northwest & Yukon Territories

General

The first stage of the Government program for the development of permanent roads in the north got underway early in 1956 and each year since construction activities have continued. In October 1965 the Government announced a massive new 10-year program to stimulate the development program in Canada's north. This new program is the first phase in a long range 20-year undertaking to bring all potential areas of resources within a 200-mile limit of the nearest road.

The Development Engineering Branch, acting as an agent, has been responsible for carrying out the policy formulated by the Department of Indian Affairs and Northern Development. This, since the initial period of construction, includes surveys comprising an estimated 2,000 miles and construction of over 1,000 miles of development roads in the northern territories.

Northwest Territories

The Fort Smith Highway, which commences approximately six miles south of Hay River on the Mackenzie Highway, travels in a south easterly direction to Fort Smith and is approximately 158 miles in length. The last significant construction project in progress in 1966 was reported as being virtually completed with only minor work still to be performed.

Construction was again underway on the Ingraham Trail out of Yellowknife where a contract for improving and widening the last five miles of the previously constructed grade was in progress. In addition, a program for the development of 30 miles of new embankment adjacent to the above area was awarded late in the fall, and work was to commence on this portion of the road after spring breakup.

Pre-engineering continued during the year on the proposed Pine Point to Fort Resolution location. Investigation and site surveys were completed leaving only minor revisions to be carried out before construction can proceed on the 57-mile location. Surveys were also carried out on the development and under-developed sections of Pine Point Townsite.

Yukon Territory

The contract for rehabilitation of the grade between Watson Lake and Ross River concluded the road program on this 220-mile section. The only other major work underway in 1966 in this area included two structures, the Money Creek Bridge, completed except for painting, and the Big Campbell Bridge, to be completed during the 1967 construction season.

Construction progressed on the Ross River-Carmacks Road, the first 50 miles of which was initiated in 1965. All engineering surveys were completed on the route early in the 1966 season.

Work was proceeding on Sixty-Mile Road, also known as the Boundary Road, with the award late in the season of a contract for grading of 38 miles of new alignment. The importance of this development road is two fold, the first and foremost to provide immediate access to the Cassiar asbestos mining area road and to serve the tourist trade entering Canada from the State of Alaska. The construction of the vehicle ferry, awarded earlier in the summer, will provide a route across the Yukon River.

With construction previously completed on Mile 76 on the Dempster Highway only pre-engineering to Mile 133 was underway during the year. This development road will eventually traverse the oil reserve in the Peel Plateau area, and continue to Fort McPherson on the Mackenzie River and ultimately to Inuvik, for a total of 450 miles.

Engineering on a 40-mile section of the Carmacks-Snag Development road location was also carried out during the 1966 season.

Special Projects

The branch undertakes planning, surveys, design, contract administration, construction supervision, inspection on works for other branches and departments requiring specialized services in the highway access road, structural, site development and utility fields. The volume of these works has progressively increased over the years.

Access Road

Construction was in progress on the Argentia Access Road in Newfoundland, involving a 25-mile location being carried out on behalf of the Department of Transport. This highway commences at the Trans-Canada Highway in the vicinity of Whitbourne, and joins the limited access road to the Argentia Ferry Terminal at Dunville. Other activities include location and construction of access roads to light stations.

Hay River Townsite

Consultants supervising two major activities at Hay River Townsite reported that construction of the intake and pumphouse facilities was completed, and work on water and sewer distribution systems was well underway. The department is administering the construction of these projects on behalf of the Territorial Government.

PROGRAMS UNDER JURISDICTION OF
DEVELOPMENT ENGINEERING BRANCH

FINANCIAL SUMMARY 1966-67

Department of Public Works

Operation and Maintenance	
Roads and bridges	\$ 409,560
Northwest Highway System	6,149,500
Testing Laboratories	1,200,000
Interprovincial bridges (and other Engineering projects)	7,105,000
Trans-Canada Highway (through National Parks)	552,700
*Trans-Canada Highway (Provincial)	78,000,000
Work on behalf of other branches of the Department	1,301,534

Other Government Departments

Indian Affairs & Northern Development	
National Parks	10,042,000
Northern Administration	6,421,000
Agriculture	81,960
Justice	1,389,240
Transport	2,531,967
Citizenship & Immigration	37,200
Royal Canadian Mounted Police	158,165

* Federal contributions towards construction

TESTING LABORATORIES

Twin goals of the Testing Laboratories during the year were the improvement of operating efficiency and the provision of better services to the department and the other agencies of government for which work was undertaken. A review of the year's activities indicates that greater productivity was achieved and this, considering there was no increase in the establishment, shows that the objectives were, in some measure, attained.

Operational costs were kept under careful scrutiny, with the result that economies were effected in several areas. This is part of a continuing program to obtain the most economic operation consistent with the quality of service provided. As new processes and materials are finding their way into government projects, requiring more time-consuming procedures for quality control measures, a constant watch must be kept on the cost of providing these services.

The division of work between development activities and quality control was similar to last year, although the trend of the past few years for development

work to increase, continued. The demands upon the laboratories for development work, consulting services and technical committees remained at a high level.

The laboratories participated in and supported in a major way the various inter-departmental qualification boards. These boards are charged with providing the procurement services of government with lists of qualified products such as builders' finishing hardware, paint products, aluminum windows, waxes, polishes and so on. A considerable volume of the laboratories' work lies in providing testing services and administrative support of these boards.

Another outgrowth of the laboratories' association with the qualifications boards has been the necessity of developing new testing procedures and the design and construction of unique equipment for the performance evaluation of such products as door closers and lock and latch sets.

Investigations were carried out on incandescent lamps, floodlights, distress signal rockets, plastic letter trays, etc., to determine service life and effectiveness for government operations.

An interesting investigation was conducted into subsurface conditions at Churchill, Man., for the installation of a water pipeline in a permafrost area. The purpose was to determine the most economical alternative of two routes and whether the line should be placed above or below ground.

Vibration control was undertaken at the British High Commission building in Ottawa during blasting for the main access tunnel to the National Arts Centre. The tunnel runs very close to the footing of the building and monitoring by National Research Council experts indicated that vibrations were higher than normal. A series of trial blasts were monitored and a close check was maintained until the excavation was completed.

The laboratories have designed and built a new window-testing apparatus to check both air and water infiltration. This will make it possible to determine accurately whether these units meet the requirements of new government specifications.

There are three operational sections in the Testing Laboratories: Chemical, Physical and Soil Mechanics.

The Chemical Section continued to provide testing, consulting development and investigational services for architects, engineers, specification writing groups, purchasing agents, etc., for the Department of Public Works and other governmental agencies and departments. A total of 2,134 samples were tested, requiring 54,900 man hours. After Public Works, Defence Production and the Department of Transport were the chief users of these services.

The Physical Section is further subdivided into three testing groups: Concrete and Asphalt Design, Physical Testing, and Structural and Development Testing. These groups deal with materials ranging from aggregates for use in concrete and asphalt to aluminum windows. During the fiscal year, these groups dealt with 7,012 samples, requiring 23,750 man hours. The chief users were the department

and the National Capital Commission. Transport accounted for about 11 percent of the samples and 13 percent of the effort. Although only two percent of the samples were submitted by National Defence, these involved expenditure of 12.4 percent of the man hours.

Improved field equipment, laboratory facilities, training and methods resulted in increased productivity in all groups of the soil Mechanics Section without any increase in staff. More detailed field investigations were carried out and testing services were extended to the International Great Lakes Levels Boards and the Water Resources Branch of the Department of Energy, Mines and Resources.

The increase in productivity of the section is illustrated by the following table covering the past three years:

Group	1966-67	1965-66	1963-64
Test Borings — Projects —			
Completed in Field	89	65	65
Soils Laboratory —			
Samples Received	4,381	2,527	2,084
Project Engineers —			
Reports Completed	110	85	83

The Department of Public Works was by far the greatest user of these services (78.6 percent of the samples and 65.7 percent of the man hours), dropping at the International Great Lakes Levels Board (10.5 percent of the samples and 5.2 percent of the man hours) and the Department of Energy, Mines and Resources, which provided 1.6 percent of the samples requiring 17.9 percent of the man hours.

BUILDING CONSTRUCTION BRANCH

From every standpoint the 1966-67 fiscal year was the biggest in the history of the Department's Building Construction Branch. In monetary value, contracts awarded by the branch totalled \$90,112,135 almost 50 percent greater than the previous high figure of \$60,746,272 reached during the 1964-65 fiscal period. In volume of business, 288 individual contracts in excess of \$5,000 were awarded compared with 259 costing \$37,631,048 in 1965-66.

General office accommodation provided out of Department of Public Works funds accounted for 194 of the new contracts and amounted to about 25 percent of the total expenditure. The balance of the projects were of special buildings required by client departments.

By far the biggest individual contract — indeed the largest single contract ever awarded by the Department — was for the construction of the National Arts Centre in Ottawa. This one contract, for the final phase of the development, was for \$31,848,000, with funds being provided by the Secretary of State. Work is to be completed late in 1968.

Public Works' second biggest client during the year was the Department of Justice, with 44 contracts involving security institutions. These amounted to

\$24,602,749 or 27.3 percent of total expenditures compared to 36 percent for the Secretary of State.

Two new elements incorporated into the department's services during the year were the addition of interior design as a standard service and implementation of the Cabinet's decision to apply a one percent allowance for fine art in public areas of federal government buildings.

During 1966-67 the administrative responsibility of all building projects was, as in previous years, divided into six groups specializing in the various types of construction handled by the department. These six sections consisted of the Office Building Group, Laboratory Group, Northern Construction Group, Penitentiary Group, Multi-Storey Group and Special Projects Group.

The Building Construction Branch ceased to exist as of March 31, 1967, to be succeeded by a new Building Design Branch, with field responsibilities coming under the directors of the six regions.

Office Buildings

This group continued in its responsibility for the planning and construction of office accommodation for Post Office, Labour, Manpower, Unemployment Insurance Commission, Trade and Commerce, and the Emergency Measures Organization and as a special case prepared the planning in new accommodation at Ottawa as a result of government reorganization and has also participated in special projects for the Centennial Commission, such as the Centennial Flame on Parliament Hill and the Sound and Light spectacle at nearby Nepean Point in Ottawa.

The program covered approximately 87 projects under active planning or construction which related to office accommodation needs.

A Winter Works program was carried out which included small revenue-type post offices and other small standard accommodations. The number of these contracts totalled 94.

This group carried out improvement work on buildings for Property and Building Management Branch. This included 29 major alterations to existing accommodations to a contract value of approximately \$7,000,000.

Laboratories

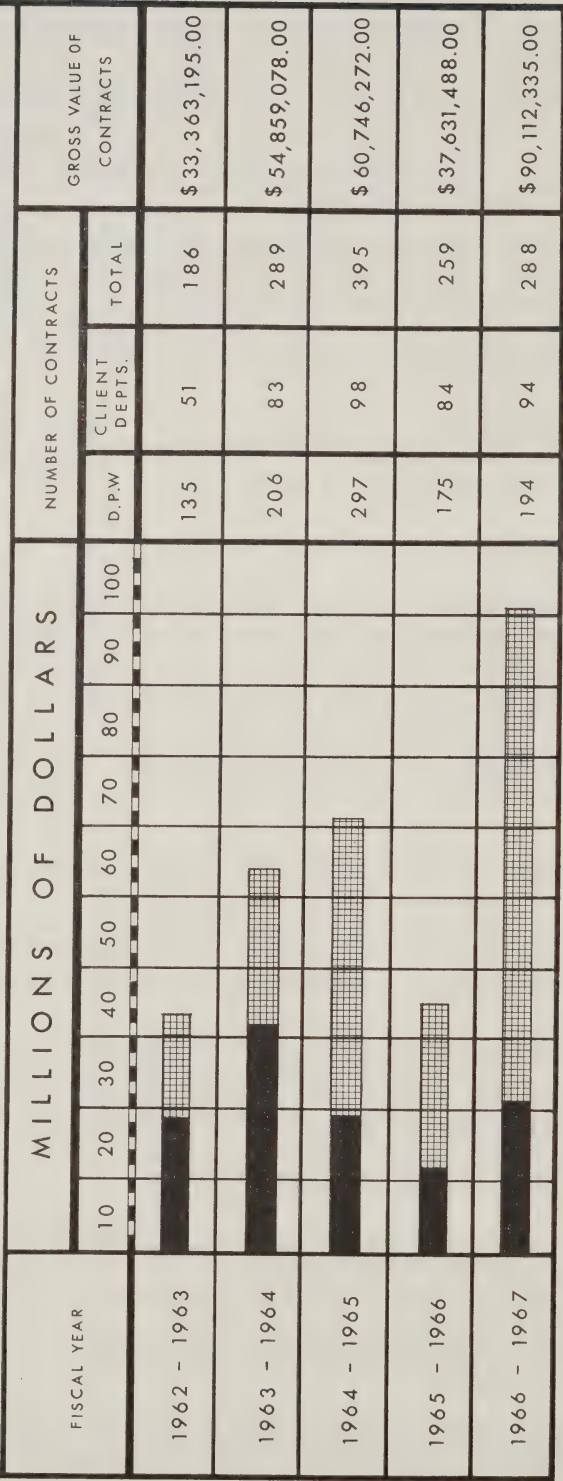
In its role as the planning and construction agency of laboratories for several government departments, this group has develop standards and special requirements for this type of building, based on considerable research experience.

During the 12 months, several large laboratories were under various stages of planning or construction.


Multi-million dollar laboratories were in the planning stage at Laval University for the Department of Agriculture, in Edmonton and Sault Ste. Marie for the


BUILDING CONSTRUCTION BRANCH

FIVE YEAR SUMMARY CHART



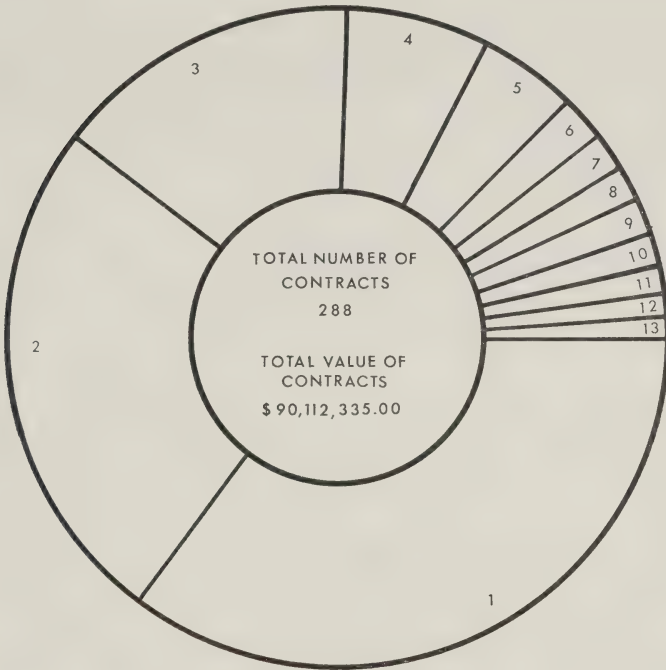
LEGEND

 INDICATES FUNDS SUPPLIED BY DEPARTMENT OF PUBLIC WORKS

 INDICATES FUNDS SUPPLIED BY OTHER GOVERNMENT DEPARTMENTS

BUILDING CONSTRUCTION BRANCH

CHART INDICATING THE NUMBER OF CONTRACTS FOR EACH DEPARTMENT AND THE PERCENTAGE OF THE TOTAL GROSS VALUE OF \$ 90,112,335.00 FOR ALL CONTRACTS IN THE PROGRAMME FOR THE FISCAL YEAR 1966-1967.



NO.	NAME OF DEPARTMENT	NUMBER OF CONTRACTS	PERCENTAGE OF GROSS VALUE
1	SECRETARY OF STATE	4	36.094 %
2	JUSTICE	44	27.303 %
3	PUBLIC WORKS	194	24.948 %
4	NATIONAL RESEARCH COUNCIL	4	4.725 %
5	INDIAN AFFAIRS & NORTHERN DEVELOPMENT	11	4.460 %
6	AGRICULTURE	8	0.781 %
7	VETERANS AFFAIRS	8	0.469 %
8	TRANSPORT	1	0.415 %
9	FORESTRY	2	0.313 %
10	FISHERIES	5	0.236 %
11	ENERGY, MINES & RESOURCES	5	0.189 %
12	NATIONAL REVENUE	1	0.044 %
13	NATIONAL HEALTH & WELFARE	1	0.023 %
	TOTAL	288	\$90,112,335.00

BUILDING CONSTRUCTION BRANCH

PROGRAMME FOR THE FISCAL YEAR 1966-1967

CHART INDICATES NUMBER OF CONTRACTS AND THE GROSS VALUE OF ALL CONTRACTS IN ACCORDANCE WITH THE SIX MAIN ITEMS OF CONSTRUCTION.



NO.	TYPE OF CONTRACT	NUMBER OF CONTRACTS	PERCENTAGE OF TOTAL VALUE
1	SPECIAL PROJECTS	3	36.02 %
2	PENITENTIARIES	27	24.88 %
3	LABORATORIES	27	16.75 %
4	FEDERAL BUILDINGS	193	14.54 %
5	NORTHERN CONSTRUCTION	36	7.35 %
6	MULTI-STOREY BUILDINGS	2	0.46 %
	TOTAL	288	100.00 %

Department of Forestry and Rural Development, and in Nanaimo for the Fisheries Research Board.

Several others were under construction, one at Fredericton for Atlantic Development Board, two large complexes near Ottawa, one for the Department of Energy, Mines and Resources and the other for the Department of Agriculture.

Also during the past 12 months, this group has seen completion of construction of other laboratories, one at Vineland for the Department of Agriculture, another at Pointe Claire, P.Q., for the Department of Forestry and Rural Development, and the Sir John Carling Building for the Department of Agriculture, in Ottawa. Also, the Western Regional Office Building for the Department of Energy, Mines and Resources in Calgary was completed at a cost of \$2,200,000.

Other projects, of an unusual and specialized nature, are the National Research Council Wind Tunnel in Ottawa now under construction, and the National Observatory at Mount Kobau, B.C., soon to be implemented.

Northern Construction

The group was active in the building program of the Department of Indian Affairs and Northern Development; National Health and Welfare; Veterans Affairs and the Royal Canadian Mounted Police, and also constructed minor buildings in the north for Energy, Mines and Resources.

Hospital work continued, progress being maintained on the Sir Charles Camsell Hospital for the care of Indian and Eskimo patients in Edmonton, and the sketch drawings for a 40-bed hospital at Hodgson, Manitoba, for the Department of National Health and Welfare. Ste. Anne de Bellevue Veterans Hospital working drawings, to provide 672 beds, were started in readiness for a later tender call.

New standardized plans were developed for RCMP detachment buildings, and new standards are being set for larger RCMP buildings. The northern program made increased use of prefabricated buildings.

In the north, school buildings were completed at Fort McPherson, Pond Inlet, Pangnirtung, and Pine Point, and an addition was made to the school at Tuktoyaktuk. A federal building was completed at Hay River and an apartment building at Inuvik. Drawings are being prepared for a school and hostel at Morphy, and school buildings at Aklavik, Coppermine, Cambridge Bay and Yellowknife. School buildings were completed for the Indian Affairs Branch at Wikwemikong, Ont., and Peguis, Man., and a prototype six-classroom at Big Trout Lake, Ont. was occupied. Contracts are underway at Garden Hill, Man., and Port Simpson, B.C. Plans are being prepared which will provide a further 55 classrooms, 36 staff units and four gymnasias.

Penitentiaries

This group completed the construction of major new medium security institutions for occupancy by the Canadian Penitentiary Service at Springhill, N.S.,

Warkworth, Ont., and Drumheller, Alta. The special correctional unit at St. Vincent de Paul, P.Q. was also completed. These contracts totalled \$27,252,328.

The group initiated a number of new construction contracts, of which the major ones included industry buildings and chapels at Springhill, N.S., Cowansville, P.Q., Warkworth, Ont., Drumheller, Alta., and Matsqui, B.C. These contracts totalled \$7,269,000.

A \$13,354,975 contract was let for the first new maximum security institution at Ste. Anne des Plaines, P.Q.

Designs for the rehabilitation of existing institutions at Joyceville and Collins Bay in Ontario, Stoney Mountain, Man., and Prince Albert, Sask., were initiated to allow construction starts in 1967.

A standard design for regional reception centres to be constructed across Canada was begun.

Multi-Storey Group

The group was engaged upon design work for a number of multi-million dollar projects including headquarters buildings in Ottawa for the Department of Transport and External Affairs, and the National Revenue (Taxation) and Data Centre complex. Also in the design stage were a Meteorological Branch headquarters in Toronto, a RCMP National Police Services Building in Ottawa, and a National Revenue Taxation Division Building in Quebec, P.Q.

Projects of less magnitude which have also been handled by the group include office, stores and shops buildings in Charlottetown, P.E.I., and pilotage offices in Port Weller, Ont., and Victoria, B.C., for the Department of Transport, together with highway offices at Highwater, P.Q., and Milltown, N.B., for the Department of National Revenue.

The total value of work being handled amounted to approximately \$110,000,000.

Special Projects

This group is responsible for a variety of buildings of national significance. Among recent projects is the proposed National Defence Headquarters Building to be erected on Lebreton Flats in Ottawa. Over the past year the initial design concepts for this building were evolved.

The National Arts Centre for Ottawa, now in Phase III of its construction, is progressing toward a scheduled completion date of 1968. Programming involves visual arts embellishments and the selection of major technical production equipment.

During the year, work continued on projects abroad for the Department of External Affairs. Renovations to Canada House, London, England, were completed. and work was nearing completion on the official residence in Ankara, Turkey.

Construction was underway on the new chancery in Bonn, West Germany. Plans were completed for a chancery in Warsaw, Poland. In addition to the above, tender documents were nearing completion for a construction program which includes a chancery, official residence and staff apartments for Brasilia, Brazil.

Other projects for which tender documents were being prepared were an official residence for Canberra, Australia, and construction in New Delhi, India, and Islamabad, Pakistan. In addition, work on the tender documents for an enlargement of the chancery in Washington and a redevelopment of the embassy compound in Tokyo, Japan, was being started.

ACCOMMODATION SERVICES

	OPERATIONS			CAPITAL		
	Salaries and Other Paylist Items	Repairs	Rents	Other	Total	Construction and Improve- ments
Newfoundland	963,112	375,282	69,533	671,121	2,079,048	704,675
Nova Scotia	783,853	356,730	415,803	554,291	2,110,677	967,804
Prince Edward Island	152,954	72,394	1,163	101,060	327,571	52,427
New Brunswick	538,559	277,351	75,675	395,161	1,286,746	390,025
Quebec	3,115,402	1,676,177	2,186,551	2,536,748	9,514,878	2,709,447
Ontario	12,657,567	4,946,413	12,342,115	13,747,945	43,694,040	19,025,998
Manitoba	2,427,682	444,694	407,995	2,194,304	5,474,675	203,275
Saskatchewan	651,530	306,010	253,040	584,860	1,501,812	3,309
Alberta	809,342	286,331	602,486	594,886	2,793,045	4,389
British Columbia	1,312,685	643,400	446,383	1,223,349	3,625,817	18,492
Northwest Territories	86,924	285,152	176,027	142,426	690,529	214,883
Yukon Territories	912,853	329,256	9,569	759,803	2,011,481	81,134
Outside of Canada	54,214	75,100	161,422	326,539	617,275	392,603
	24,466,677	10,074,290	17,147,762	23,832,493	75,521,222	32,249,438
					767,450	33,016,888
						108,538,110

* Includes \$33,638,135 operations and \$16,106,808 capital pertaining to City of Ottawa.

HARBOURS AND RIVERS ENGINEERING SERVICES

	OPERATIONS			CAPITAL		
	Dredging	Repairs and Upkeep	Grants and Subsidies	Other	Total	Construction and Improve- ments
Newfoundland	432,315	780,339	—	—	1,212,654	5,238,106
Nova Scotia	74,801	455,968	—	—	530,769	3,798,392
Prince Edward Island	330,338	196,854	—	—	527,192	682,527
New Brunswick	178,017	302,817	—	38,987	519,821	4,804,952
Quebec	438,447	1,046,369	189,500	291,258	1,965,574	5,507,338
Ontario	—	548,230	1,275	16,598	566,103	6,316,560
Manitoba	264,530	88,519	—	39,508	392,557	88,334
Saskatchewan	—	—	—	—	—	—
Alberta	318,289	12,378	—	—	330,667	12,121
British Columbia	789,121	494,501	90,270	256,822	1,630,714	3,490,689
Northwest Territories	—	—	—	—	—	155,691
Yukon Territories	—	2,524	—	—	2,524	—
	2,825,858	3,928,499	281,045	643,173	7,678,575	30,094,710
					281,504	30,376,214
						38,054,789

ROADS AND BRIDGES ENGINEERING SERVICES

OPERATIONS

Salaries and
Other Paylist
Items

Repairs

Other

Total

Construction

Equipment

Total

CAPITAL

Trans-Canada
Highway
Constructions

Total

Total

Newfoundland

Nova Scotia

Prince Edward Island

New Brunswick

Quebec

Ontario

Manitoba

Saskatchewan

Alberta

British Columbia

Northwest Territories

Yukon Territories

5,774,954

18,304,225

431,810

10,599,378

41,780,173

2,930,107

—

423,026

338,784

433,032

—

138,504

5,890,271

95,565,923

MISCELLANEOUS

OPERATIONS

Salaries and
Other Paylist
Items

Other

Total

Equipment

CAPITAL

Buildings
Works, Lands,
etc.

Total

Total

Minister's Salary and

Motor Car Allowance

General Administration

Testing Laboratories

Gratuities to Families of

Deceased Employees

Refunds of Amounts credited to

Revenue in Previous Years

17,000

15,368,320

871,607

1,712

—

16,258,639

2,494,665

18,753,304

474,753

19,228,057

**DEPARTMENT OF PUBLIC WORKS
STATEMENTS OF EXPENDITURES BY THE
DEPARTMENT OF PUBLIC WORKS
DURING THE FISCAL YEAR ENDING MARCH 31, 1967**

SUMMARY

	OPERATIONS	CAPITAL	TRANS-CANADA HIGHWAY CONTRIBUTIONS	TOTAL
Accommodation Services	75,521,222	33,016,888	—	108,538,110
Harbors and Rivers				
Engineering Services	7,678,575	30,376,214	—	38,054,789
Roads and Bridges				
Engineering Services	5,546,638	9,003,796	81,015,489	95,565,923
Miscellaneous	18,753,304	474,753	—	19,228,057
	107,499,739	72,871,651	81,015,489	261,386,879

**REVENUE RECEIVED BY THE DEPARTMENT OF PUBLIC WORKS
DURING THE FISCAL YEAR ENDING MARCH 31, 1967**

ACCOMMODATION SERVICES

ORDINARY

Rents from public buildings and related properties	\$ 3,742,076.80
Sales of old furniture, fittings and building material, etc.	2,770.25
Sales of real estate	7,800.00
Commissions from telephone booths in public buildings	28,736.59
Refunds of previous year's expenditures	278,356.82
Quarters and rations	696,848.91
Laundry services	47,214.89
Sundry receipts	639.00
	<u>\$ 4,804,443.26</u>

ENGINEERING WORKS

Sales of real estate	31,974.48
Earnings of Dry Docks, etc.	
Champlain Dry Dock, Lauzon, Que.	161,737.82
Lorne Dry Dock, Lauzon, Que.	43,830.61
Selkirk, Man., Repair Slip	—
Esquimalt, B.C., New Dry Dock	251,725.65
	<u>\$ 489,268.56</u>
Revenue from leased works and plants —	
Kingston, Ont., Dry Dock, rental	\$ 12,100.00
Ferry privileges	385.00
Earnings of dredges and plants	42,167.94
	<u>\$ 54,652.94</u>
Rents from water lots, etc.	108,961.91
Refunds of previous year's expenditures	530,309.06
Sundry receipts	12,496.59
	<u>\$ 1,195,689.06</u>

MISCELLANEOUS

Damages to government property	\$ 7,271.13
Sundry receipts	1,015,701.61
	<u>\$ 1,022,972.74</u>

GENERAL SUMMARY

Accommodation Services	\$ 4,804,443.26
Engineering Works	1,195,689.06
Miscellaneous	1,022,972.74
	<u>\$ 7,023,105.06</u>

1966-67 REVENUE

The revenue for the year amounted to \$7,023,105.06 and was made up as follows:

Graving Docks	\$ 457,294.08
Rents	3,905,306.65
Casual Revenue	2,660,119.33
Ferries	385.00
	<u>\$ 7,023,105.06</u>

A breakdown of the above revenue follows:

Graving Docks — Maintenance and Operation

Champlain Graving Dock	\$ 161,737.82
Lorne Graving Dock, Lauzon, Que.	43,830.61
Selkirk, Man. — Repair Slip	—
Esquimalt, B.C. — Graving Dock	251,725.65
	<u>\$ 457,294.08</u>

Rents

Public Buildings	3,742,076.80
Water lots	108,961.91
Kingston Dry Dock	12,100.00
Earnings of the Dredges	42,167.94
	<u>\$ 3,905,306.65</u>

Casual Revenue

Sales of old furniture, etc.	2,770.25
Sales of real estate — Buildings	7,800.00
Commission from telephones in Public Buildings ...	28,736.59
Refunds of previous years' expenditures —	
Public Buildings	278,356.82
Refunds of previous years' expenditures —	
Engineering	530,309.06
Sundry receipts — Engineering	12,496.59
Damages to Government property	7,271.13
Sundry receipts — Miscellaneous	1,015,701.61
Sales of real estate — Engineering	31,974.48
Quarters and Rations	696,848.91
Laundry Services	47,214.89
Sundry receipts — Accommodation	639.00
	<u>\$ 2,660,119.33</u>

Ferries

Licence fees	\$ 385.00
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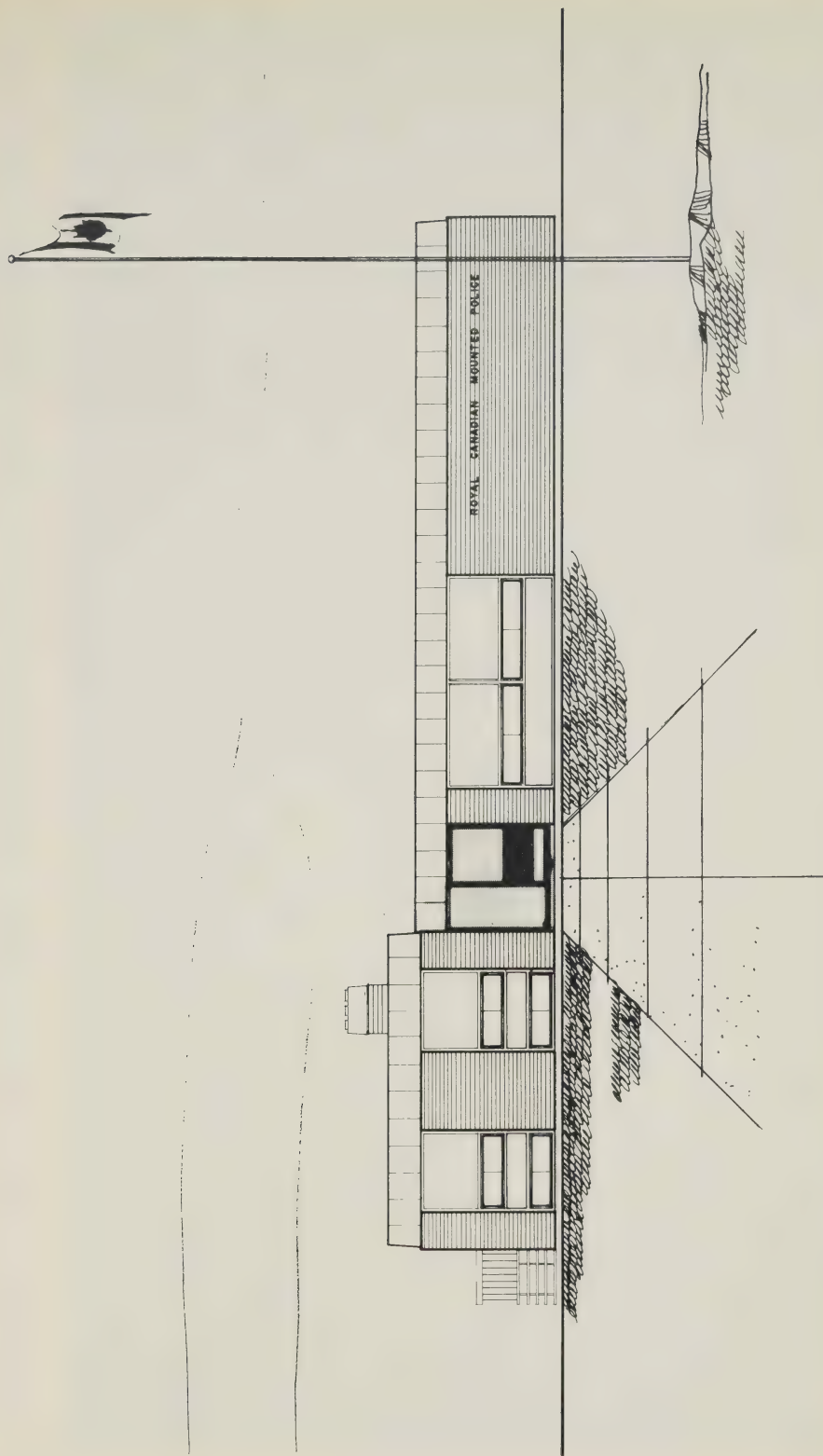
\$ 7,023,105.06

EXPENDITURES MADE UNDER ENCUMBRANCES FROM OTHER DEPARTMENTS,
BUT NOT REPORTED IN THE PUBLIC WORKS SECTION OF
THE PUBLIC ACCOUNTS

Building Construction	\$46,997,021.91	
Property and Building Management	<u>2,080,845.33</u>	
		\$49,077,867.24
Harbors and Rivers Engineering	\$12,872,249.95	
Development and Engineering	<u>17,084,720.52</u>	
		\$29,956,970.47
TOTAL		<u><u>\$79,034,873.71</u></u>

STATEMENT OF FERRY LICENCES IN FORCE DURING
THE FISCAL YEAR ENDING MARCH 31, 1967

Courtright, Ontario — St. Clair, Michigan	\$ 25.00
Cumberland, Ontario — Masson, P.Q.	10.00
Fitzroy Harbour, Ontario — Quyon, P.Q.	125.00
Kingsville, Leamington, Pelee Island, Ontario — Sandusky, Ohio	25.00
Montebello, Quebec — McGowen Point, Ontario	15.00
Niagara Falls, Ontario — Niagara Falls, New York	25.00
Niagara-on-the-Lake, Ontario — Youngstown, New York	25.00
Port Lambton, Ontario — Roberts Landing, Michigan	25.00
Sombra, Ontario — Marine City, Michigan	25.00
Walpole Island, Ontario — Algonac, Michigan	25.00
Notre Dame du Bon Secours, Que. — Lefaiivre, Ont.	60.00

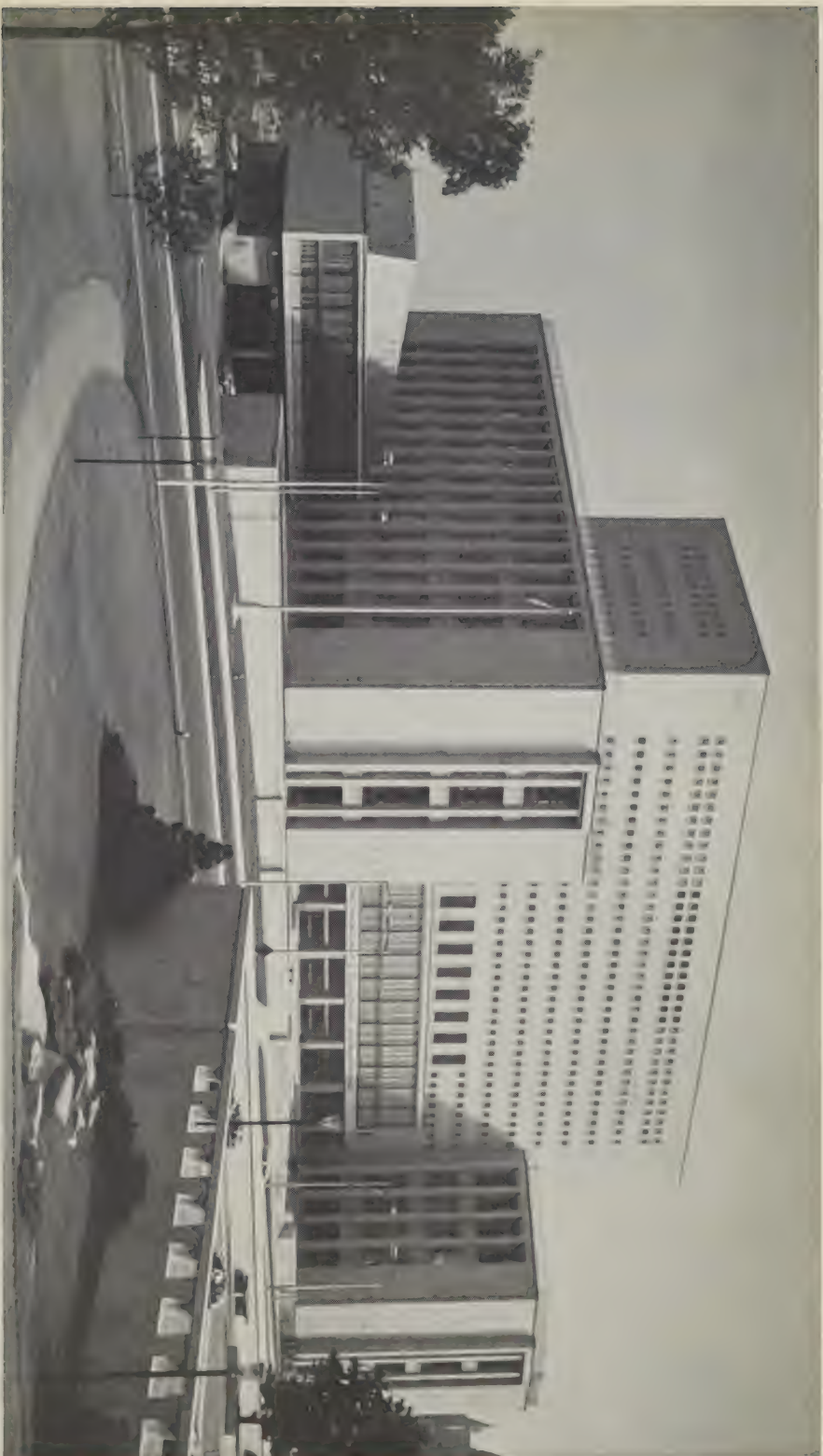


A number of RCMP detachment quarters were built during the year to a new standard design developed by architects at Department of Public Works headquarters. The building incorporates married quarters, office space, cell and two-car garage.

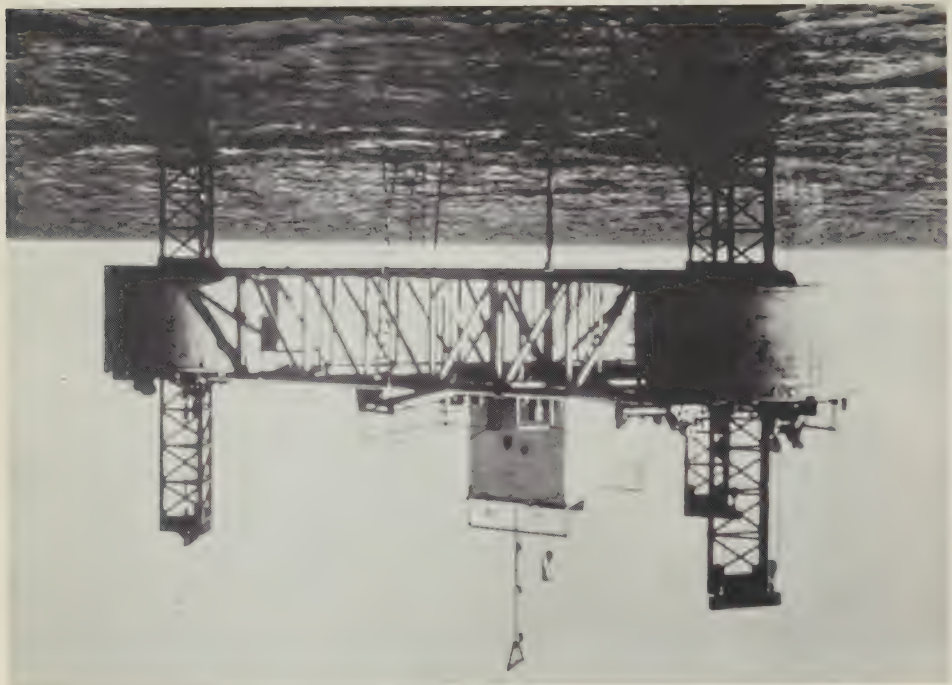
Un certain nombre de postes de la Gendarmerie Royale du Canada ont été construits, au cours de l'année, selon de nouveaux devis standard préparés par des architectes du bureau central du ministère des Travaux publics. Chaque poste comprend une aire de logement familial, un bureau, une cellule et un garage double.



The first quarter of Canada's Centennial year coincided with the last quarter of the fiscal year, a period which saw the Department of Public Works putting the finishing touches on such Centennial projects of national interest as the Sir John Carling Building, new headquarters of the Department of Agriculture, and the National Library and Archives Building, shown on the opposite page.



Le dernier trimestre de l'année fiscale coïncidait avec le premier trimestre de l'année du Centenaire de la confédération. C'est durant cette période que le ministère des Travaux publics a mis la dernière main à des projets du Centenaire d'envergure nationale tels que l'édifice de la Bibliothèque nationale et des Archives (ci-haut) et l'édifice Sir John Carling, le nouveau siège du bureau central du ministère de l'Agriculture, page opposée.



On a entrepris, au cours de l'année 1966-67, les travaux aux approches du passage du détroit de Northumberland, qui reliera l'Île-du-Prince-Édouard et le Nouveau-Brunswick. La photo ci-dessus nous fait voir à l'oeuvre les lourdes pièces de machinerie employées au nivellement des approches du côté du Nouveau-Brunswick. Ci-dessous, une tour du type Texas-tower, à forage sous-marin, explore le fond du détroit afin de déterminer sa nature avant la construction du passage.

Construction of approaches to the Northumberland Strait Crossing, between New Brunswick and Prince Edward Island, was underway during the fiscal year, 1966-67. Shown above are heavy earth-moving machinery at work on the New Brunswick approaches and (below) a Texas-tower-like drilling rig determining the nature of the bottom of the Strait in advance of construction.

DÉBOURSEES EFFECTUÉES EN VERTU DE CHARGES IMPUTÉES À D'AUTRES
MINISTÈRES, MAIS NON RAPPORTÉES AUX COMPTES DES TRAVAUX PUBLICS

DANS LES COMPTES PUBLICS

Construction d'édifices	\$46,997,021.91	
Gestion des immeubles	2,080,845.33	
Génie (ports et rivières)	\$12,872,249.95	
Génie (aménagement)	17,084,720.52	
		\$49,077,867.24
		\$29,956,970.47
TOTAL		\$79,034,873.71

LISTE DES PERMIS DE PASSAGE D'EAU EN VIGUEUR
AU COURS DE L'ANNÉE FINANCIÈRE TERMINÉE LE 31 MARS 1967

Courtright (Ont.) — St. Clair (Mich.)	\$ 25.00
Cumberland (Ont.) — Masson (P.Q.)	10.00
Fitzroy Harbour (Ont.) — Quyon (P.Q.)	125.00
Kingsville, Leamington, île Pelee (Ont.) — Sandusky (Ohio)	25.00
Montebello (P.Q.) — Pointe McGowen (Ont.)	15.00
Niagara Falls (Ont.) — Niagara Falls (N.Y.)	25.00
Niagara-on-the-Lake (Ont.) — Youngstown (N.Y.)	25.00
Port Lambton (Ont.) — Roberts Landing (Mich.)	25.00
Sombra (Ont.) — Marine City (Mich.)	25.00
Walpole Island (Ont.) — Algonac (Mich.)	25.00
Notre-Dame-du-Bon-Secours (P.Q.) — Lefavre (Ont.)	60.00

RÉCAPITULATION

Services du logement	.....	\$ 4,804,443.26
Travaux de génie	.....	1,195,689.06
Divers	.....	1,022,972.74
		<u>\$ 7,023,105.06</u>

RECETTES POUR 1966-67

Les recettes de l'année s'élèvent à \$7,023,105.06 et se répartissent comme il suit:

Bassins de radoub	.....	\$ 457,294.08
Loyers	.....	3,905,306.65
Recettes imprévues	.....	2,660,119.33
Passages d'eau	.....	385.00
		<u>\$ 7,023,105.06</u>

Suit la ventilation des recettes ci-dessus:

Bassins de radoub — Entretien et exploitation

Bassin de radoub Champlain	.....	\$ 161,737.82
Bassin de radoub Lorne, Lauzon (P.Q.)	.....	43,830.61
Cale de radoub de Selkirk (Man.)	.....	—
Bassin de radoub d'Esquimalt (C.-B.)	.....	251,725.65
		<u>\$ 457,294.08</u>

Loyers

Édifices publics	.....	3,742,076.80
Lots riverains	.....	108,961.91
Bassin de radoub de Kingston	.....	12,100.00
Recettes des dragues	.....	42,167.94
		<u>\$ 3,905,306.65</u>

Recettes imprévues

Ventes de vieux meubles, etc.	.....	2,770.25
Ventes d'immeubles — Édifices	.....	7,800.00
Commissions provenant de téléphones dans les édifices publics	.....	28,736.59
Remboursement de dépenses d'années précédentes — Édifices publics	.....	278,356.82
Remboursement de dépenses d'années précédentes — Génie	.....	530,309.06

Recettes diverses — Génie	.....	12,496.59
Domages causés à des propriétés de l'État	.....	7,271.13
Recettes diverses de services divers	.....	1,015,701.61
Vente d'immeubles — Génie	.....	31,974.48
Logement et vivres	.....	696,848.91
Service de buanderie	.....	47,214.89
Recettes diverses — Locaux	639.00
		<u>\$ 2,660,119.33</u>

Passages d'eau

Droit de permis	\$ 385.00
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\$ 7,023,105.06

MINISTÈRE DES TRAVAUX PUBLICS **ÉTAT DES DÉBOURSEES EFFECTUÉES PAR LE MINISTÈRE DES** **TRAVAUX PUBLICS DURANT L'ANNÉE TERMINÉE LE 31 MARS 1967**

SOMMAIRE

CONTRIBUTIONS		IMMOBILISATIONS		EXPLOITATION		
ROUTE		TRANSCANADIENNE		TOTAL		
Services du logement	75,521,222	33,016,888	—	108,538,110		
Services du génie						
(ports et rivières)	7,678,575	30,376,214	—	38,054,789		
Services du génie						
(ponts et chaussées)	5,546,638	9,003,796	81,015,489	95,565,923		
Divers	18,753,304	474,753	—	19,228,057		
	107,499,739	72,871,651	81,015,489	261,386,879		

RECETTES DU MINISTÈRE DES TRAVAUX PUBLICS **AU COURS DE L'ANNÉE FINANCIÈRE TERMINÉE** **LE 31 MARS 1967**

SERVICES DU LOGEMENT

\$ 3,742,076.80		Loyers d'édifices publics et de propriétés attenantes
2,770.25		Ventes de vieux meubles, accessoires, matériaux de construction, etc.
7,800.00		Ventes d'immuebles
28,736.59		Commissions provenant de téléphones publics dans les édifices publics
278,356.82		Remboursement de dépenses d'années précédentes
696,848.91		Logement et vivres
47,214.89		Service de buanderie
639.00		Recettes diverses
\$ 4,804,443.26		

TRAVAUX DE GÉNIE

31,974.48		Ventes d'immuebles
161,737.82		Recettes provenant de bassins de radoub, etc.
43,830.61		Bassin de radoub Champlain, Lauzon (P.Q.)
251,725.65		Bassin de radoub, Lauzon (P.Q.)
489,268.56		Cale de radoub de Selkirk (Man.)
\$		Nouveau bassin de radoub d'Esquimalt (C.-B.)
54,652.94		Recettes provenant de location d'ouvrages et d'outillage —
12,100.00		Location du bassin de radoub de Kingston (Ont.)
385.00		Permis de passages d'eau
42,167.94		Location de dragues et d'outillage
\$		Loyers de lots riverains, etc.
108,961.91		Remboursement de dépenses d'années précédentes
530,309.06		Recettes diverses
12,496.59		
\$ 1,195,689.06		

DIVERS

\$ 7,271.13		Domages causés à des propriétés de l'Etat
1,015,701.61		Recettes diverses
\$ 1,022,972.74		

SERVICES DU GÉNIE (PONTS ET CHAUSSEES)

	EXPLOITATION				IMMOBILISATIONS			
	Appointements et autres postes de feuilles de paie	Réparations	Autres déboursés	Total	Construction	Matériel	Total	Contributions route transcanadienne
Terre-Neuve	—	—	—	—	—	—	—	—
Nouvelle-Écosse	3,823	1,251	262	5,336	—	—	—	5,774,954
île du Prince-Édouard	—	—	—	—	4,317,352	—	4,317,352	18,304,225
Nouveau-Brunswick	3,078	25,655	1,207	29,940	—	—	—	431,810
Québec	—	9,981	2,956	12,937	2,918,508	—	2,918,508	10,599,378
Ontario	87,206	71,263	18,343	176,812	466,179	—	466,179	41,780,173
Manitoba	—	—	—	—	—	—	—	2,930,107
Saskatchewan	—	—	—	—	—	—	—	—
Alberta	—	2,500	—	2,500	30,804	—	30,804	423,026
Colombie-Britannique	—	—	—	—	561,291	—	561,291	372,088
Territoires du Nord-Ouest	—	—	—	—	—	—	—	43,032
Territoire du Yukon	1,590,834	2,083,018	1,645,261	5,319,113	138,504	490,807	138,504	994,323
	1,684,941	2,193,668	1,668,029	5,546,638	8,512,989	490,807	9,003,796	5,890,271
								95,565,923

	EXPLOITATION		DIVERS		IMMOBILISATIONS		
	Appointements et autres postes de feuilles de paie	Autres déboursés	Total	Matériel	Edifices, ouvrages, terrains, etc.	Total	TOTAL
Traitement du ministre et allocation pour automobile	17,000	—	17,000	—	—	—	17,000
Administration générale	15,368,320	2,240,894	17,609,214	413,151	—	413,151	18,022,365
Laboratoires d'essais	871,607	243,094	1,114,701	61,602	—	61,602	1,176,303
Gratifications aux familles de fonctionnaires décédés	1,712	—	1,712	—	—	—	1,712
Remboursement de montants crédités aux recettes au cours d'années précédentes	—	10,677	10,677	—	—	—	10,677
	16,258,639	2,494,665	18,753,304	474,753	—	474,753	19,228,057

SERVICES DU LOGEMENT

Appointements
et autres

EXPLOITATION

IMMOBILISATIONS

	feuilles de paie	Réparations	Loyers	Autres déboursés	Total	Construction et améliorations	Matériel	Total	TOTAL
Terre-Neuve	963,112	375,282	69,333	671,121	2,079,048	704,675	13,290	717,965	2,797,013
Nouvelle-Écosse	783,853	356,730	415,803	554,291	2,110,677	967,804	18,266	986,070	3,096,747
Île du Prince-Édouard	152,954	72,394	1,163	101,060	327,571	52,427	1,946	54,373	381,944
Nouveau-Brunswick ..	538,559	277,351	75,675	395,161	1,286,746	390,025	4,626	394,651	1,681,397
Québec	3,115,402	1,676,177	2,186,551	2,536,748	9,514,878	2,709,447	37,769	2,747,216	12,262,094
Ontario	12,657,567	4,946,413	12,342,115	13,747,945	43,694,040	19,025,998	162,096	19,188,094	62,882,134*
Manitoba	2,427,682	444,694	407,995	2,194,304	5,474,675	1,859,439	203,275	2,062,714	7,537,389
Saskatchewan	651,530	306,010	253,040	584,860	1,795,440	150,812	3,309	154,121	1,949,561
Alberta	809,342	286,331	602,486	594,886	2,293,045	2,528,432	4,389	2,532,821	4,825,866
Colombie-Britannique ..	1,312,685	643,400	446,383	1,223,349	3,625,817	2,086,697	18,492	2,105,189	5,731,006
Territoires du Nord-Ouest ..	86,924	285,152	176,027	142,426	690,529	1,135,238	214,883	1,350,121	2,040,650
Territoire du Yukon ..	912,853	329,256	9,569	759,803	2,011,481	245,841	81,134	326,975	2,338,456
En dehors du Canada	54,214	75,100	161,422	326,539	617,275	392,603	3,975	396,578	1,013,853
	24,466,677	10,074,290	17,147,762	23,832,493	75,521,222	32,249,438	767,450	33,016,888	108,538,110

* Comprend \$33,638,135 pour exploitation et \$16,106,800 pour immobilisations se rapportant à la ville d'Ottawa.

SERVICES DU GÉNIE (PORTS ET RIVIÈRES)

EXPLOITATION

IMMOBILISATIONS

	Dragage	Réparations et entretien	Octrois et subventions	Autres déboursés	Total	Construction et améliorations	Matériel	Total	TOTAL
Terre-Neuve	432,315	780,339	—	—	1,212,654	5,238,106	87,148	5,325,254	6,537,908
Nouvelle-Écosse	74,801	455,968	—	—	530,769	3,798,392	2,923	3,801,315	4,332,084
Île du Prince-Édouard ..	330,338	196,854	—	—	527,192	682,527	14,175	696,702	1,223,894
Nouveau-Brunswick ..	178,017	302,817	—	38,987	519,821	4,804,952	10,613	4,815,565	5,335,386
Québec	438,447	1,046,369	189,500	291,258	1,965,574	5,507,338	28,177	5,535,515	7,501,089
Ontario	—	548,230	1,275	16,598	566,103	6,316,560	14,404	6,330,964	6,897,067
Manitoba	264,530	88,519	—	39,508	392,557	88,334	42,088	130,422	522,979
Saskatchewan	—	—	—	—	—	—	—	—	—
Alberta	318,289	12,378	—	—	330,667	12,121	—	12,121	342,788
Colombie-Britannique ..	789,121	494,501	90,270	256,822	1,630,714	3,490,689	24,045	3,514,734	5,145,448
Territoires du Nord-Ouest ..	—	—	—	—	—	—	57,931	—	213,622
Territoire du Yukon ..	—	2,524	—	—	2,524	—	—	—	2,524
	2,825,858	3,928,499	281,045	643,173	7,678,575	30,094,710	281,504	30,376,214	38,054,789

fiscales. Également au stade de la conception étaient le bureau central de la Direction de la météorologie à Toronto, un édifice des Services nationaux de police de la Gendarmerie royale du Canada, à Ottawa, et un édifice pour la division de l'impôt du ministère du Revenu national, à Québec.

Ce groupe s'est aussi occupé de projets d'importance moindre, y compris des édifices logeant des bureaux, des magasins et des ateliers à Charlottetown (I. P.-E.) et des bureaux de pilotage pour le ministère des Transports à Port Weller (Ont.) et à Victoria (C.-B.), de même que des bureaux routiers à Highwater (P.Q.) et à Millitown (N.-B.) pour le ministère du Revenu national.

Projets spéciaux

La valeur totale des travaux s'est élevée à environ \$110,000,000.

Ce groupe est chargé d'une variété d'édifices d'importance nationale. Parmi les projets récents, il y a l'édifice du bureau central du ministère de la Défense nationale, qui sera situé à Lebreton Flats à Ottawa. Au cours de l'année dernière, les travaux préliminaires de conception de cet édifice ont été élaborés.

Les travaux de construction du Centre national des Arts à Ottawa, actuellement dans la phase III du projet, progressent vers la date d'achèvement fixée, soit 1968. Le programme comprend l'ornementation au moyen des arts visuels et le choix du matériel important de production technique.

Au cours de l'année, les travaux à l'étranger pour le compte du ministre des Affaires extérieures se sont poursuivis. Les rénovations à Canada House, à Londres, ont été complétées et les travaux sont presque terminés à la résidence officielle à Ankara, Turquie. La nouvelle chancellerie à Bonn, Allemagne de l'Ouest, était en voie de construction. Les plans d'une chancellerie à Varsovie, Pologne ont été terminés. De plus, on a presque terminé les documents de soumission relatifs à un programme de construction qui comprend une chancellerie, une résidence officielle et des appartements pour le personnel, à Brasilia, Brésil.

D'autres projets pour lesquels on a préparé des documents de soumission comprennent une résidence officielle à Canberrra, Australie, et des travaux de construction à Nouvelle Delhi, Inde, et à Islamabad, Pakistan. De plus, on a commencé les travaux relatifs aux documents de soumission pour un agrandissement de la chancellerie à Washington et pour un réaménagement du terrain de l'ambassade à Tokyo.

Edmonton ont progressé, de même que les esquisses d'un hôpital de 40 lits à Hodgson (Man.) pour le compte du ministère de la Santé nationale et du Bien-être social. On a commencé à tracer les dessins d'exécution relatifs à l'installation de 672 lits à l'hôpital des anciens combattants de Sainte-Anne-de-Bellevue, en préparation d'un appel de soumissions qui sera fait plus tard.

Ce groupe a élaboré de nouveaux plans normalisés pour les bâtiments de détachement de la Gendarmerie royale du Canada et est en train de rédiger de nouvelles normes relatives aux grands immeubles de la GRC. On a utilisé de plus en plus la construction préfabriquée pour le programme de construction dans le Nord.

Dans le Nord, la construction d'écoles à Fort McPherson, Pond Inlet, Pangnirtung et Pine Point a été achevée et un rajout a été construit à l'école de Tuktoyaktuk. Un édifice fédéral a été achevé à Hay River, de même qu'un immeuble à appartements à Inuvik. On est à préparer des esquisses pour une école et une hôtellerie à Morphy et pour des écoles à Aklavik, Coppermine, Cambridge Bay et Yellowknife. La construction d'écoles pour la Direction des affaires indiennes à Wikwemikong (Ont.) et à Peguis (Man.) a été terminée et une école prototype de six classes a été occupée à Big Trout Lake (Ont.). Des contrats sont en voie d'exécution à Gardien Hill (Man.) et à Port Simpson (C.-B.). On prépare actuellement les plans de 55 nouvelles classes, 36 résidences pour le personnel et quatre gymnases.

Pénitenciers

Ce groupe a achevé la construction de quatre grandes institutions à sécurité moyenne, qui seront occupées par le Service pénitentiaire du Canada, à Springhill (N.-É.), Warkworth (Ont.) et à Drumheller (Alb.). L'unité spéciale de détention à Saint-Vincent-de-Paul (P.Q.) a été également achevée. Ces contrats représentaient un montant total de \$27,252,328.

Ce groupe a entrepris de nouvelles constructions dont les plus importantes étaient des édifices industriels et des chapelles à Springhill (N.-É.), à Cowansville (P.Q.), à Warkworth (Ont.), à Drumheller (Alb.) et à Matsqui (C.-B.). Les contrats relatifs à ces constructions se sont élevés à \$7,269,000.

Un contrat, au montant de \$13,354,975, a été adjugé pour la construction de la première institution à sécurité maximum de Sainte-Anne-des-Plaines (P.Q.). Ce groupe a également commencé à tracer les plans pour la rénovation des institutions existantes à Joyceville (Ont.), à Collins Bay (Ont.), à Stoney Mountain (Man.), et à Prince Albert (Sask.), afin que les travaux de construction puissent débuter en 1967.

Ce groupe a préparé des plans standards pour les centres de réception régionaux qui seront construits dans tout le Canada.

Immeubles à étages multiples

Ce groupe s'est occupé des travaux de conception d'un certain nombre de projets d'une valeur de plusieurs millions de dollars, y compris le bureau central, à Ottawa, du ministère des Transports, du ministère des Affaires extérieures et du ministère du Revenu national (Impôt) et le complexe du Centre des données

Le programme relatif aux besoins de locaux à bureaux comprenait 87 projets qui étaient en voie de planification ou de construction.

Le groupe a exécuté un programme de travaux d'hiver. Les travaux comprennent la construction de petits bureaux de poste à commission, ainsi que la construction d'autres petits locaux réglementaires. Le nombre de ces contrats s'est élevé à 94.

Ce groupe a effectué des travaux d'amélioration aux édifices existants pour le compte de la Direction de la gestion des immeubles. Ce programme comprenait 29 contrats importants pour des modifications aux édifices existants pour une valeur d'environ \$7,000,000.

Laboratoires

Dans son rôle d'organisme de planification et de construction de laboratoires pour plusieurs ministères du gouvernement, ce groupe a mis au point des normes et des exigences spéciales pour ce genre de construction, fondées sur une expérience de recherches considérables.

Au cours de la période de douze mois, plusieurs grands laboratoires étaient à divers stades de planification ou de construction.

Des laboratoires d'une valeur de plusieurs millions de dollars étaient en voie de planification à l'Université Laval pour le ministère de l'Agriculture, à Edmonton et à Sault-Sainte-Marie pour le ministère des Forêts et du Développement rural, et à Nanaimo pour l'Office des recherches sur les pêcheries.

Plusieurs autres étaient en voie de construction, un à Fredericton pour le compte de l'Office d'expansion économique pour la région atlantique, deux grands complexes près d'Ottawa, dont un pour le ministère de l'Énergie, des Mines et des Ressources, et l'autre pour le ministère de l'Agriculture.

Également au cours des douze derniers mois, ce groupe a complété la construction d'autres laboratoires, un à Vineland pour le ministère de l'Agriculture, un autre à Pointe-Claire (P.Q.), pour le ministère des Forêts et du Développement rural, et l'édifice Sir John Carling pour le ministère de l'Agriculture, à Ottawa. L'édifice du bureau régional de l'Ouest a également été achevé pour le compte du ministère de l'Énergie, des Mines et des Ressources, au coût de \$2,200,000.

D'autres projets, de nature extraordinaire et spécialisée, sont la soufflerie d'essais pour le compte du Conseil national de recherches à Ottawa, actuellement en voie de construction, et l'observatoire national à Mount Kobau (C.-B.), dont la construction commencera bientôt.

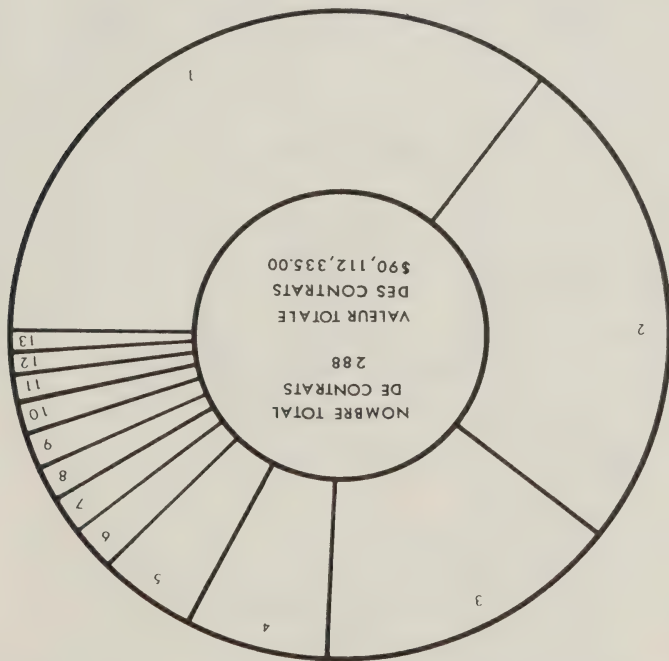
Construction dans le nord Canadien

Ce groupe a fait preuve d'une grande activité dans son programme de construction pour les ministères des Affaires indiennes et du Nord canadien, de la Santé nationale et du Bien-être social, des Affaires des anciens combattants et pour la Gendarmerie royale du Canada. Il a de plus construit de petits bâtiments dans le Nord pour le ministère de l'Énergie, des Mines et des Ressources.

Les travaux relatifs à des hôpitaux ont continué. Les travaux de construction à l'hôpital Sir Charles Campell pour le soin des Indiens et des Esquimaux à

DIRECTION DE LA CONSTRUCTION DES EDIFICES

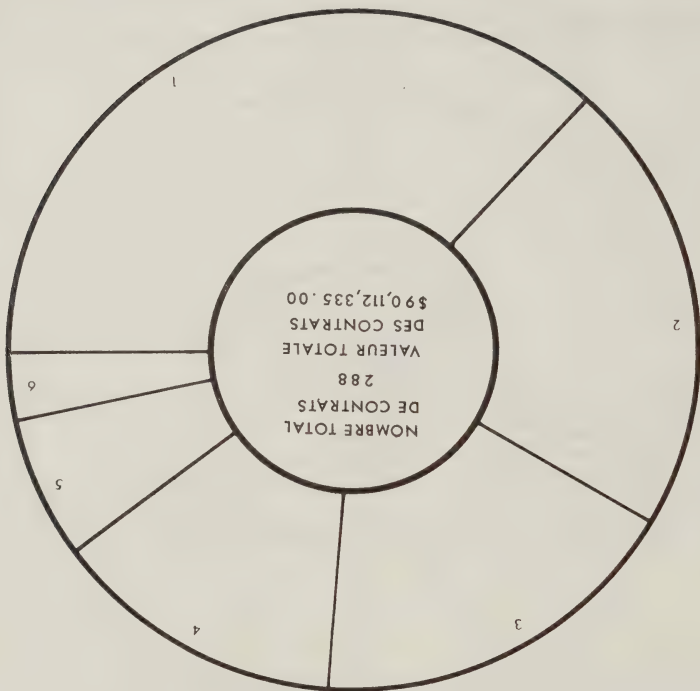
GRAPHIQUE INDICANT LE NOMBRE DE CONTRATS ADJUGES POUR LE COMPTE DE CHACUN DES MINISTÈRES, ET LE POURCENTAGE QUE CES CONTRATS REPRÉSENTENT PAR RAPPORT À LA SOMME DE \$ 90,112,335.00 MONTANT DE LA VALEUR BRUTE DES CONTRATS AU TITRE DU PROGRAMME DE L'EXERCICE 1966-1967.



N°	MINISTÈRE	NOMBRE DE CONTRATS	POURCENTAGE DE LA VALEUR TOTALE
1	SECRÉTARIAT D'ÉTAT	4	36.094 %
2	JUSTICE	44	27.303 %
3	TRAVAUX PUBLICS	194	24.948 %
4	CONSEIL NATIONAL DE RECHERCHES	4	4.725 %
5	NORD CANADIEN ET RESSOURCES NATIONALES	11	4.460 %
6	AGRICULTURE	8	0.781 %
7	AFFAIRES DES ANCIENS COMBATTANTS	8	0.469 %
8	TRANSPORTS	1	0.415 %
9	FORÊTS	2	0.313 %
10	PÊCHERIES	5	0.236 %
11	ÉNERGIE, MINES ET RESSOURCES	5	0.189 %
12	REVENU NATIONAL	1	0.044 %
13	SANTÉ NATIONALE ET BIEN-ÊTRE SOCIAL	1	0.023 %
	TOTAL	288	\$90,112,335.00

DIRECTION DE LA CONSTRUCTION DES ÉDIFICES

PROGRAMME DE L'EXERCICE 1966-1967
GRAPHIQUE INDICANT LE NOMBRE ET LA VALEUR BRUTE DES CONTRATS
ADJUGÉS DANS LE CADRE DES SIX CATÉGORIES PRINCIPALES DE
CONSTRUCTION



NO.	GENRE DE CONTRAT	NOMBRE DE CONTRATS	POURCENTAGE DE LA VALEUR TOTALE
1	PROJETS SPÉCIAUX	3	36.02 %
2	PÉNITENCIERS	27	24.88 %
3	LABORATOIRES	27	16.75 %
4	ÉDIFICE FÉDÉRAUX	193	14.54 %
5	CONSTRUCTIONS DANS LE GRAND NORD	36	7.35 %
6	IMMEUBLES ÉLEVÉS	2	0.46 %
	TOTAL	288	100.00 %

DIRECTION DE LA CONSTRUCTION DES ÉDIFICES RÉCAPITULATION

PÉRIODE DE CINQ ANS

EXERCICES	MILLIONS DE DOLLARS										NOMBRE DE CONTRATS			VALEUR BRUTE DES CONTRATS
	10	20	30	40	50	60	70	80	90	100	M.T.P.	AUTRES MIN.	TOTAL	
1962 - 1963											135	51	186	\$ 33,363,195.00
1963 - 1964											206	83	289	\$ 54,859,078.00
1964 - 1965											297	98	395	\$ 60,746,272.00
1965 - 1966											175	84	259	\$ 37,631,488.00
1966 - 1967											194	94	288	\$ 90,112,335.00

LÉGENDE



CORRESPOND AUX SOMMES VERSÉES PAR LE MINISTÈRE DES TRAVAUX PUBLICS

CORRESPOND AUX SOMMES VERSÉES PAR LES AUTRES MINISTÈRES DU GOUVERNEMENT

À tous points de vue, l'année financière 1966-1967 a été la plus importante dans l'histoire de la construction des édifices du Ministère. La valeur monétaire des contrats adjugés par la direction s'est chiffrée à \$90,112,135, soit environ 50 p. 100 de plus que le chiffre précédent de \$60,746,272 atteint au cours de l'exercice financier 1964-1965. Au point de vue affaires, la direction a adjugé 288 contrats particuliers de plus de \$5,000 que l'on peut comparer avec 259 contrats adjugés au cours de 1965-1966 à un coût de \$37,631,048.

Parmi les nouveaux contrats, 194 étaient pour des locaux à bureaux en général, payés à même les fonds du ministère des Travaux publics et dont la valeur représentait environ 25 p. 100 des dépenses totales. Les autres projets représentaient des immeubles destinés à des fins spéciales, demandés par des ministères clients.

De beaucoup le contrat particulier le plus important — de fait le plus gros contrat simple jamais adjugé par le Ministère — a été pour la construction du Centre national des arts à Ottawa. Ce contrat à lui seul, pour la phase définitive de son exécution, représentait un montant de \$31,848,000, payé à même les fonds du Secrétariat d'État. Les travaux sont censés être achevés à la fin de 1968.

Le ministère de la Justice a été, en importance, le deuxième client du ministère des Travaux publics, ayant à son crédit 44 contrats relatifs à des installations de sécurité. Ces contrats se chiffraient à \$24,602,749, soit 27.3 p. 100 des dépenses totales, alors que le pourcentage du Secrétariat d'État était de 36 p. 100. Au cours de l'année, deux nouveaux éléments ont été ajoutés aux services fournis par le Ministère: la conception intérieure comme service normal et l'exécution de la décision du Conseil des ministres relativement à l'affectation de un pour cent pour l'installation d'une œuvre d'art dans les secteurs publics des édifices du gouvernement fédéral.

Au cours de 1966-1967, la charge administrative de tous les projets de construction était, comme pour les années antérieures, partagée entre six groupes spécialisés dans divers genres de construction relevant du Ministère. Ces groupes comprenaient les immeubles à bureaux, les laboratoires, la construction dans le Nord canadien, les pénitenciers, les immeubles à étages multiples et les projets spéciaux.

La Direction de la construction des édifices a cessé d'exister le 31 mars 1967 et a été remplacé par la Direction de la conception des édifices. La responsabilité de l'administration locale de cette direction a été déléguée aux directeurs de six régions.

Immeubles à bureaux

Ce groupe continue à se charger de la conception et de la construction de locaux à bureaux pour les ministères des Postes, du Travail, de la main-d'œuvre et de l'Immigration, du Commerce, pour la Commission d'assurance-chômage et pour l'Organisation des mesures d'urgence. Ce groupe, dans un cas spécial, a été chargé de la conception de nouveaux locaux à la suite d'une réorganisation gouvernementale et a également pris part à des projets spéciaux de la Commission du centenaire, comme la flamme du centenaire sur la colline du Parlement et le spectacle « Son et lumière », tout près de la colline, à la pointe Nepean, à Ottawa.

Les laboratoires ont conçu et construit un dispositif d'essai de nouvelles fenêtres en vue de vérifier l'infiltration de l'air et de l'eau. Il sera possible avec ce dispositif de déterminer avec précision si ces fenêtres répondent aux exigences des nouveaux devis du gouvernement.

Les laboratoires d'essais comprennent trois sections d'exploitation : la section de la chimie, la section de la physique et la section de la mécanique des sols.

La section de la chimie continue à faire profiter de ses services d'essais, de consultations techniques, et de recherches des architectes, des ingénieurs, des organismes de rédaction de devis, des agents des achats, etc., du ministère des Travaux publics et d'autres organismes et ministères du gouvernement. Un total de 2,134 échantillons ont été reçus, qui ont exigé 54,900 heures de travail. Après le ministère des Travaux publics, les ministères de la Production de défense et des Transports ont été les deux ministères qui ont fait le plus souvent appel aux services de cette section.

La section de la physique est subdivisée en trois groupes d'essais : béton et asphalte, physique, et bâtiments et aménagements. Ces groupes ont effectué des essais sur des matériaux allant d'agrégats à béton et à asphalte jusqu'aux fenêtres en aluminium. Au cours de l'année financière, ces groupes ont effectué des essais sur 7,012 spécimens à raison de 23,570 heures de travail. Le Ministère et la Commission de la capitale nationale ont été les principaux usagers. Environ 11 p. 100 des échantillons provenaient du ministère des Transports, représentant 13 p. 100 du travail. Bien que le ministère de la Défense nationale n'ait soumis que 2 p. 100 des échantillons, ceux-ci ont représenté tout de même 12,4 p. 100 du travail.

L'amélioration des appareils de chantier, des aménagements de laboratoire, de la formation et des méthodes a permis d'accroître la productivité de tous les groupes de la section de la mécanique des sols, sans avoir à augmenter le personnel. Des recherches sur place plus approfondies ont été effectuées et des services d'essais ont été accordés au Bureau international du niveau des Grands lacs et à la Direction des ressources hydrauliques du ministère de l'Énergie, des Mines et des Ressources.

L'augmentation de la productivité de la section est illustrée dans le tableau ci-après qui englobe les trois dernières années :

Groupe			
Travaux de sondage et d'échantillonnage —			
Achèvés sur place	89	65	65
Laboratoire des sols —			
Échantillons reçus	4,381	2,527	2,084
Ingénieurs de projets —			
Rapports préparés	110	85	83

Le ministère des Travaux publics a été celui qui a fait le plus souvent appel aux services de cette section, ayant à son crédit 78,6 p. 100 des échantillons et 65,7 p. 100 des heures de travail. Il a été suivi du Bureau international du niveau des Grands lacs qui a soumis 10,5 p. 100 des échantillons pour un pourcentage de 5,2 des heures de travail et du ministère de l'Énergie, des Mines et des Ressources dont les échantillons représentaient 1,6 p. 100, exigeant 17,9 p. 100 des heures de travail.

Les laboratoires d'essais s'étaient donné pour double mission au cours de l'année d'améliorer l'efficacité d'exploitation et de fournir de meilleurs services au Ministère et aux autres organismes du gouvernement pour lesquels des travaux sont réalisés. Une étude des travaux effectués au cours de l'année révèle qu'un plus grand rendement a été obtenu, même s'il n'y a eu aucune augmentation de l'effectif, indiquant ainsi que ces objectifs ont été, dans une certaine mesure, atteints.

Les frais d'exploitation ont fait l'objet d'un examen minutieux, qui a permis la réalisation d'économies dans plusieurs secteurs. Ceci fait partie d'un programme continu en vue d'obtenir l'exploitation la plus économique tout en fournissant la même qualité de services. Étant donné que de nouveaux procédés et de nouveaux matériaux sont utilisés dans les projets du gouvernement, ce qui exige des méthodes plus complexes et plus longues pour les mesures de contrôle de la qualité, on doit exercer une surveillance constante sur les frais d'exploitation.

La répartition des travaux de recherches et de contrôle de la qualité était la même que celle qui existait l'année précédente, bien que la tendance de ces dernières années à l'accroissement des travaux de recherches se soit poursuivie. Les laboratoires ont continué à recevoir de nombreuses demandes de travaux de recherches, de services de consultations et de comités techniques.

Les laboratoires ont pris part aux diverses commissions d'acceptation inter-ministérielles et les ont grandement appuyées. Ces commissions sont chargées de fournir aux services d'achats du gouvernement des listes de produits acceptés, comme la quincaillerie pour bâtiments, la peinture, les fenêtres en aluminium, les cires, les matériaux de polissage, etc. Les laboratoires consacrent un volume considérable des travaux qu'ils effectuent aux services d'essais et au soutien administratif qu'ils accordent à ces commissions.

Une autre conséquence de cette association des laboratoires avec les commissions d'acceptation a été la nécessité de créer de nouvelles méthodes d'essai et de concevoir des appareils uniques pour l'évolution du rendement de produits tels que les ferme-porte, les serrures et les verrous.

Les laboratoires ont effectué pour le compte du gouvernement des recherches sur des lampes à incandescence, des projecteurs, des signaux de détresse à fusée, sur des boîtes à correspondance en matière plastique, etc., en vue de déterminer leur durée et leur efficacité.

Une expérience intéressante a été faite des conditions du sous-sol à Churchill (Man.) pour l'installation d'une conduite d'eau dans le pergélisol, en vue de déterminer laquelle de deux routes serait la plus économique et de décider si la conduite devrait être installée sur terre ou sous terre.

Des études sur les vibrations ont été effectuées à l'édifice du Haut-Commissaire de la Grande-Bretagne à Ottawa au cours du dynamitage du tunnel d'accès principal au Centre national des arts. Le tunnel suit la base de cet édifice de très près et les dispositifs de contrôle des experts du Conseil national de recherches indiquaient que les vibrations étaient plus élevées que celles auxquelles on pouvait s'attendre normalement. Une série de dynamitages d'essai ont été contrôlés et une surveillance étroite a été maintenue jusqu'au parachèvement de l'excavation.

traversera éventuellement les réserves de pétrole du plateau Peel et s'étendra jusqu'à Fort McPherson sur la rivière Mackenzie et, finalement, jusqu'à Inuvik, soit un total de 450 milles.

Les travaux de génie ont également été exécutés au cours de la saison 1966 sur un tronçon de 40 milles du chemin reliant Carmacks à Snag.

Projets spéciaux

La Direction a entrepris des travaux de planification, d'arpentage, de conception, d'administration de contrats, de surveillance de la construction, d'inspection des travaux pour d'autres directions et d'autres ministères qui avaient besoin de ses services spécialisés dans les domaines relatifs aux chemins d'accès aux routes, à la construction, à l'aménagement d'emplacements et à l'installation de services publics. Le volume de ces travaux a progressivement augmenté au cours des ans.

Route d'accès

Les travaux de construction ont progressé à la route d'accès à Argentina (Terre-Neuve) où un parcours de 25 milles est actuellement en construction pour le compte du ministère des Transports. Cette route commence à la route trans-canadienne, aux environs de Whitbourne, et joint le chemin d'accès limité allant au terminus du service de transbordement d'Argentina, à Dunville. D'autres entre-prises comprennent les travaux d'emplacement et de construction de chemins d'accès aux phares.

Ville de Hay River

Les experts-conseils, chargés de la surveillance de deux projets importants à Hay River, ont fait rapport que la construction des installations de la prise d'eau et du poste de pompage est complétée et que les travaux relatifs aux installations de distribution d'eau et d'égouts sont bien avancés. Le Ministère est chargé de l'administration de ces projets pour le compte du gouvernement territorial.

PROGRAMMES RELEVANT DE LA DIRECTION DU GÉNIE (AMÉNAGEMENT)

SOMMAIRE FINANCIER 1966-1967

Ministère des Travaux publics

Exploitation et entretien

Chemin et ponts	\$ 409,560
Réseau routier du Nord-Ouest	6,149,500
Laboratoires d'essais	1,200,000
Ponts interprovinciaux (et autres projets techniques)	7,105,700
Route transcanadienne (provinciale)	552,700
Travaux pour le compte des autres directions du Ministère	78,000,000
	1,301,534

Autres ministères du gouvernement

Affaires indiennes et Nord canadien

Parcs nationaux	10,042,000
Administration du Nord	6,421,000
Agriculture	81,960
Justice	1,389,240
Transports	2,531,967
Citoyenneté et Immigration	37,200
Gendarmerie royale du Canada	158,165
* Contributions du gouvernement fédéral envers la construction.	

indiennes et du Nord canadien. Depuis la période initiale de construction, les travaux ont compris l'arpentage d'environ 2,000 milles et la construction de plus de 1,000 milles de chemins de mise en valeur des ressources des territoires du Nord.

Territoires du Nord-Ouest

La route de Fort Smith, qui commence à environ six milles au sud de Hay River sur la route MacKenzie, file en direction sud-est vers Fort Smith et a une longueur d'environ 158 milles. Le dernier projet important en voie de construction en 1966 était, virtuellement achevé avec seulement quelques petits travaux à exécuter.

Encore une fois, des travaux étaient en voie de construction au chemin Ingraham Trail, en-dehors de Yellowknife, où un contrat pour l'amélioration et l'élargissement des derniers cinq milles déjà construits était en voie d'exécution. De plus, un programme relatif à la construction d'un nouveau remblai de 30 milles de longueur, adjacents au secteur ci-haut mentionné, a été établi à la fin de l'automne et les travaux devaient commencer sur cette partie du chemin à la suite du dégel au printemps.

Les travaux préliminaires de génie se sont poursuivis au cours de l'année à l'emplacement projeté de la route allant de Pine Point à Fort Resolution. Des études et des visites sur les lieux ont été complétées, ne laissant que quelques révisions à exécuter avant que la construction puisse commencer sur le parcours d'une longueur de 57 milles. Des études ont également été faites à l'égard de la mise en valeur de la ville de Pine Point, de même que de ses secteurs sous-développés.

Territoire du Yukon

Le contrat pour la rénovation de la route reliant le lac Watson et la rivière Ross a représenté la dernière phase du programme de routes relativement à ce tronçon de 220 milles. Le seul autre projet important en voie d'exécution dans cette région en 1966 comprenait deux ouvrages, le pont de Money Creek, achevé à l'exception des travaux de peinture, et le pont de Big Campbell, devant être achevé au cours de la saison de construction de 1967.

Les travaux de construction de la route allant de la rivière Ross à Carmacks ont progressé, les premiers 50 milles ayant été commencés en 1965. Toutes les études de génie à l'égard de cette route étaient complétées au début de la saison de 1966.

Les travaux se sont poursuivis sur le chemin Sixty-Mile, aussi connu sous le nom de chemin Boundary, alors qu'un contrat a été adjugé vers la fin de la saison pour le nivellement de 38 milles du nouvel alignement. Ce chemin de mise en valeur est important pour deux raisons, la première et primordiale est d'assurer une voie d'accès immédiate au chemin conduisant aux mines d'amiante Cassiar, et la deuxième, de fournir une bonne route d'entrée aux touristes qui arrivent au Canada de l'état de l'Alaska. La construction d'un transbordeur pour véhicules, dont le contrat a été adjugé au début de l'été, fournira une route traversant la rivière Yukon.

Les travaux de construction ayant déjà été parachevés au point milliaire 76 sur la route Dempster, seuls des travaux préliminaires de génie au point milliaire 133 étaient en voie d'exécution au cours de l'année. Ce chemin de mise en valeur

Parcs de l'Ouest

Les travaux du premier stade de construction de la route Jasper-Yellowhead étaient virtuellement achevés, y compris la construction des ponts Miette, Clearvaux et Meadow Creek. La construction des dix derniers milles du nouveau terrassement de la route Jasper-Edmonton, dont l'achèvement a été fixé pour 1967, sera le parachèvement de cette route de premier ordre.

La reconstruction du tronçon de 145 milles de la route Banff-Jasper en était aux derniers stades avec seulement quelques petits travaux à exécuter. Cette route, qui passe dans les Rocheuses, offre un panorama des plus spectaculaires.

Les travaux de construction se poursuivent sur la route donnant accès au centre de villégiature à l'usage des touristes au lac Maligne. Deux contrats importants pour le terrassement d'une longueur de 2.9 et de 4.4 milles étaient en voie d'exécution sur le chemin du lac Maligne, y compris la construction de trois ponts et, dans tous les cas, les travaux, selon le rapport, étaient rendus aux derniers stades. Un contrat distinct pour la construction du pont sur la rivière Maligne est terminé, à l'exception des travaux de peinture des garde-fous et d'un nettoyage général.

Les travaux de construction des 11.5 milles du chemin d'accès au sommet du mont Revelstoke dans le parc national Revelstoke sont presque achevés.

Projets divers

Un contrat relatif aux travaux d'amélioration des rues et des services de la ville de Jasper était en voie d'exécution au cours de l'année dans le parc national Jasper. Les travaux de construction étaient effectués sur le chemin d'accès White-horne et sur le chemin de jonction Mount Temple dans le parc national Banff, y compris l'aménagement d'un terrain de stationnement, tous les travaux étant exécutés en vertu d'un seul contrat.

Parcs de l'Est

Les travaux dans l'est du Canada ont été restreints au terrain récemment aménagé et nommé parc national Kejimikujik dans la province de la Nouvelle-Ecosse. À cet endroit les travaux de terrassement sur une longueur de sept milles d'un nouvel alignement sont censés être achevés en 1967.

Chemins de mise en valeur — territoires du Nord-Ouest et du Yukon

Généralités

La première phase du programme d'aménagement de chemins permanents dans le Nord était en voie d'exécution au début de 1956 et, à chaque année depuis, les travaux de construction se sont poursuivis. Au mois d'octobre 1965, le gouvernement a annoncé un nouveau programme d'envergure de 10 ans en vue de stimuler le développement du Nord canadien. Ce nouveau programme représente la première étape d'une entreprise à long terme qui devrait amener d'ici 20 ans toutes les régions ayant un potentiel de ressources dans un secteur de 200 milles du chemin le plus rapproché.

La Direction du génie (aménagement), en qualité d'agent, a été chargée de mettre à exécution la ligne de conduite formulée par le ministère des Affaires

adjugé le premier contrat de cette entreprise au cours de la saison d'hiver 1964-1965.

Le parachèvement de cet ouvrage double en béton précontraint, à trois voies, avait été originellement fixé pour octobre 1966. Toutefois, le 10 août 1966, alors qu'on était à couler du béton à la partie sud de l'ouvrage, la travée mise en tension après bétonnage s'est soudainement écroulée, causant la mort de neuf personnes et blessant un grand nombre d'autres. L'accident causait également des dommages considérables à l'ouvrage. On a fait une enquête pour déterminer la cause de l'accident et l'on a arrêté tous les travaux pour une période de 5 semaines. La partie nord du pont devait être achevée et ouverte à la circulation à l'été de 1967, tandis que la partie sud de l'ouvrage devait l'être plus tard dans l'année.

Passage du détroit de Northumberland

À la suite de l'annonce faite par le premier ministre en juillet de l'année dernière, les travaux de construction ont commencé au projet du passage du détroit de Northumberland, qui combine une chaussée, un pont et un tunnel. Le premier contrat, adjugé en novembre 1965, pour la construction du chemin d'accès et du remblai de la voie ferrée au Nouveau-Brunswick, est maintenant terminé. Les travaux de construction d'un viaduc à Murray's Corner étaient en voie d'exécution dans la même province.

Les travaux de construction du chemin d'accès et du remblai de la voie ferrée à l'île du Prince-Édouard ont débuté au cours de l'année et doivent être achevés vers la fin de 1967.

Étant donné les difficultés techniques énormes qui peuvent survenir dans les domaines du génie et de la construction à l'égard d'un projet de cette envergure, une séance d'études techniques a été tenue à Charlottetown (I. P.-E.) le 4 juillet 1966. Le Ministère s'est efforcé de donner à toutes les parties intéressées tous les renseignements possibles sur les éléments à construire, afin que ces parties puissent être plus facilement en mesure d'apprécier leur capacité respective relativement à l'exécution du projet.

Route transcanadienne — parcs nationaux

Le parc national Glaciers est le seul secteur où des travaux ont été exécutés. Un programme de lutte contre les avalanches, consistant en des travaux de prolongement et d'amélioration aux aménagements existants, était en voie d'exécution. Les travaux de revêtement définitif des 27 milles de la route transcanadienne qui traverse le parc ont débuté au cours de l'année.

Chemins principaux et panoramiques — parcs nationaux

Généralités

La Direction a poursuivi le programme de reconstruction des routes dans les parcs nationaux pour le compte du ministère des Affaires indiennes et du Nord canadien. À la fin de la présente saison, des travaux d'arpentage sur une longueur de 500 milles et des travaux de construction de route sur plus de 350 milles auront été achevés dans divers parcs. On prévoit qu'au 31 mars 1967 une somme totale de 72 millions de dollars aura été dépensée pour la reconstruction des routes dans les parcs nationaux du Canada.

Ponts intraprovinciaux, interprovinciaux et intercontinentaux

Le Ministère est chargé de l'administration et de l'entretien de six ponts internationaux, huit ponts interprovinciaux et cinq ponts intraprovinciaux. Au cours de l'année dernière, six ponts intraprovinciaux qui relevaient autrefois de la Direction, ont été cédés ou sont en voie d'être cédés à l'autorité provinciale. Les ponts cédés sont les suivants: Berthierville, Calumet-Bryson, Chapleau, Notre-Dame-du-Nord, Papineauville, dans la province de Québec, et le pont Shellmouth, dans la province du Manitoba.

Réseau routier du Nord-Ouest

Le ministère des Travaux publics a continué d'assumer la responsabilité de l'entretien et de l'administration de ce réseau routier. Le réseau, comprenant les 1,220 milles de la route de l'Alaska, les 117 milles de la route Haines et les voies d'accès, a continué à bénéficier d'un entretien de même qualité que celui des années précédentes.

Les remarques faites à la suite de la première année de l'adjudication d'un contrat de trois ans pour l'entretien du tronçon de 180 milles à l'extrémité sud de la route de l'Alaska, dans la province de la Colombie-Britannique, ont permis de constater l'efficacité de ce genre de contrat. Au cours de l'année, les limites de la route du programme original ont été prolongées d'environ 30 milles. On se propose d'ajuster un deuxième contrat pour l'entretien qui comprendrait un tronçon de 196 milles adjaçant au tronçon actuel, avant la fin de la présente saison. Le tronçon de la route en Colombie-Britannique, soumis au contrat d'entretien, serait donc prolongé jusqu'au point milliaire 496.

Les négociations se poursuivent en vue de la cession au gouvernement territorial du Yukon du tronçon de la route qui traverse le Yukon. Ce gouvernement agirait, par la suite, comme agent du Ministère pour l'obtention des 166 milles faisant partie du tronçon de la Colombie-Britannique. La date actuellement fixée pour la cession est le 1^{er} avril 1968.

Le rapport sur les avantages économiques qui pourraient découler du pavage de la route de l'Alaska, présenté au Parlement en juin 1966, exprime l'opinion que le pavage n'est pas justifié à l'heure actuelle. Il est plutôt recommandé dans le rapport d'apporter des améliorations partielles au réseau. Les deux études techniques faites par le personnel du Ministère, de même que le rapport économique, font actuellement l'objet d'une étude.

Un contrat pour la construction d'un aqueduc à Whitehorse, qui devait être adjugé au cours de 1966, a été remis à plus tard à cause de la hausse exorbitante du coût de la construction.

L'entretien de la route Haines en hiver s'est poursuivi pour la quatrième saison consécutive, aux mêmes conditions et stipulations qui étaient auparavant en vigueur avec l'état de l'Alaska.

Pont du chemin Heron

Le Ministère, aux termes d'une convention de partage des coûts, en date du 18 mai 1964, acceptait que la ville d'Ottawa prenne les dispositions nécessaires en vue de construire un ouvrage qui traverserait la rivière Rideau, la promenade Colonel By et le canal Rideau, aux alentours de Confédération Heights. La ville a

Route transcanadienne

Les conventions relatives à la route transcanadienne sont la responsabilité de la Direction; ces conventions prévoient la construction d'une route revêtue en dur ayant deux voies carrossables en tout temps, dont le coût est partagé entre le gouvernement fédéral et les gouvernements provinciaux. Au cours de l'année 1966-1967, les travaux relatifs à la route transcanadienne ont été exécutés, en grande partie, dans les provinces de l'Atlantique et dans la province de Québec. Tous les détails de la marche de la construction, des engagements pris par chaque province et des paiements versés à chaque province sont publiés dans le rapport annuel des travaux exécutés en conformité de la loi sur la route transcanadienne.

Reconstruction de la route n° 6 dans les comtés de Matane et de Gaspé-Nord (P.Q.)

Le 30 août 1965, le gouvernement fédéral a signé avec la province de Québec une entente selon laquelle il s'engageait à contribuer jusqu'à concurrence de 13 millions de dollars pour la reconstruction d'une partie de la route n° 6, dans la province de Québec. Il s'agit d'un tronçon d'environ 86 milles de longueur le long de la rive nord de la péninsule de Gaspé. En août 1964, le gouvernement avait annoncé qu'après des études poussées, il en était venu à la conclusion que cette route devait être reconstruite au lieu d'un chemin de fer autorisé par le Parlement en 1962 entre Matane et Sainte-Anne-des-Monts.

Route Moncton-Buctouche (N.-B.)

Le 21 avril 1966, le gouvernement fédéral a signé avec la province du Nouveau-Brunswick une entente selon laquelle il s'engageait à contribuer jusqu'à concurrence de \$1,250,000 pour la construction d'une nouvelle route entre Moncton et Buctouche, dans la province du Nouveau-Brunswick, par suite de l'abandon de la ligne Buctouche par les chemins de fer Nationaux. Les fonds du gouvernement fédéral à l'égard de ce projet sont fournis par le ministère fédéral des Transports.

Office d'expansion économique de la région atlantique

Le Ministère assure la surveillance et le contrôle techniques de deux programmes routiers dans les provinces de l'Atlantique, du projet d'une centrale électrique à Baie-d'Espoir, à Terre-Neuve, et du projet d'une autre centrale électrique à Mactaquac, au Nouveau-Brunswick. Ces programmes, qui relèvent de l'Office d'expansion économique de la région atlantique, coûteront au trésor public la somme totale de 80 millions de dollars. Dans son rapport annuel, l'Office d'expansion économique de la région atlantique publie les détails sur la marche des travaux exécutés pendant l'année financière.

Routes vers les ressources

Le Ministère assure la surveillance et le contrôle techniques relatifs au programme des routes vers les ressources qui relève du ministère de l'Énergie, des Mines et des Ressources. Les progrès réalisés au cours de l'année sont décrits, dans le rapport annuel de ce ministère.

La première phase d'un nouveau mouillage de cargos à Sarnia, qui comportait l'achat d'un vaste terrain et le dragage du mouillage, ainsi que l'emprise sur la mer du terrain contigu, est terminée.

Un mur d'amarrage et un chataud de transit représentent les phases futures du projet de \$1,000,000.

Les ouvrages portuaires de Lakehead ont continué de faire l'objet d'un programme considérable de travaux d'entretien et de réparation.

On a commencé une vaste remise à neuf des écluses et du barrage de St. Andrews et du slip de carénage de Selkirk au Manitoba.

Un nouveau remorqueur de pipe-line à deux hélices a été construit à Riverton afin d'aider l'une des dragues du Ministère de service au Manitoba.

Le Ministère a poursuivi son programme de dragage dans le Grand Nord en vue d'améliorer et d'entretenir les chenaux de navigation du réseau de voies d'eau Athabaska-Mackenzie. De plus, on a entrete nu des quais le long de ces cours d'eau et on en a amélioré d'autres.

De grands travaux de reconstruction ont été exécutés au quai d'Inuvik. On a aussi commencé l'amélioration des ouvrages portuaires de Hay River (T.N.-O.). En Colombie-Britannique, on a entrepris 21 projets de plus de \$50,000 chacun, leur coût estimatif total s'élevant à \$3,400,000. En outre, on a exécuté 110 travaux à l'entreprise et en régie au coût estimatif total de \$4,900,000.

Les deux dragues que le Ministère met en service sur le Bas-Fraser ont enlevé plus de 2,500,000 verges cubes de déblais des chenaux de navigation du fleuve.

L'entretien et le fonctionnement du bassin de radoub d'Esquimalt ont été continués pendant toute l'année. Cinquante-deux navires d'une jauge totale de 374,000 tonnes sont entrés dans le bassin pour y être réparés et entretenus. Le bassin a été occupé pendant 245 jours.

La première phase de la trifurcation du fleuve Fraser est terminée et l'on a adjugé un contrat pour la deuxième. L'achèvement de la troisième phase est prévue pour 1969. Le projet comporte la construction d'un réseau de murs de dérivation destinés à régulariser le débit du fleuve à New Westminster. Le but des travaux est de réduire la formation naturelle de battures ou la sédimentation des chenaux de navigation en augmentant les effets de chasse des courants du fleuve.

Des membres du personnel du Ministère ont continué, au cours de l'année, l'étude de l'effet des variations du niveau de l'eau sur les Grands lacs. Cette étude relève de la Commission mixte internationale. Elle comporte l'appréciation des effets du niveau changeant de l'eau sur la rive canadienne de plus de 5,000 milles autour des Grands lacs. Toute l'étude est censée être terminée en 1970.

DIRECTION DU GÉNIE (Aménagement)

La préparation du rapport annuel de 1966-1967 des travaux et des réalisations de la Direction du génie (aménagement) a été la dernière tâche de cette direction dans le cadre de l'ancien concept des responsabilités que doit assumer une direction du ministère des Travaux publics.

contribution du Ministère à un immense complexe de pêche à cet endroit, de concert avec la société locale de traitement du poisson, l'ARDA, la municipalité et la province. On a également adjugé un contrat pour des améliorations à Paspébiac pour servir à une nouvelle usine à poisson et à des bateaux de pêche.

Quatre dragues ministérielles, dont le port d'attache est Rimouski, ont dragué plus de 125,000 verges cubes de déblais de petits havres des secteurs de Gaspé et des îles de la Madeleine.

La première phase de l'aménagement d'un grand port à Gros-Cacouna est commencée. Elle comprend la construction des brise-lames nord et sud et l'achèvement d'un chemin d'accès. On a également commencé la seconde phase avec l'adjudication d'un contrat de dragage de \$3,800,000.

Aux termes de sa politique des ports de plaisance, le gouvernement fédéral participe à l'aménagement de nouvelles installations à l'usage des bateaux de plaisance. Le Ministère a construit un brise-lames afin de protéger le petit havre de Sillery, près de Québec. On a ensuite effectué du dragage. Des personnes de l'endroit doivent fournir les débarcadères et les services.

D'importantes améliorations ont été apportées à la tête de ligne de transport de Saint-Ignace-de-Loyola au coût d'un peu plus de \$250,000.

La construction d'un ouvrage de retenue des glaces en aval de l'emplacement de l'Expo 67 a été terminée au coût de quelque \$15,000,000. On a cédé l'administration et la régie de cet ouvrage au ministère des Transports en octobre.

Quarante-trois navires en tout ont utilisé les bassins de radoub Champlain et Lorne pendant un total de 1,040 jours/navire. Ces navires représentaient une jauge brute totale de 227,000 tonnes.

On a exécuté des travaux à plus de 320 différents projets en Ontario, en 1966-67. Le coût individuel de 22 de ces projets était supérieur à \$50,000.

Un grand projet de remise à neuf et d'élargissement était en cours au barrage ontarien de Témiscamingue. Le coût estimatif de ces travaux est d'environ \$1,300,000. Exception faite de menus travaux sur l'emplacement, tous les travaux ont été terminés au cours de la seconde moitié de 1966. Le barrage régularise le niveau et le débit de l'eau non seulement à des fins de navigation mais aussi pour la génération d'énergie électrique et il sert de fondation à la route provinciale qui traverse l'emplacement. Le coût des travaux a été partagé avec l'Hydro-Québec, l'Hydro-Ontario et le ministère de la Voirie de l'Ontario.

On a continué la reconstruction des jetées du chenal de Burlington et l'on compte que ce travail sera fini en 1967. Les jetées reconstruites sont conçues en fonction de la nouvelle profondeur de 29 pieds du chenal. L'élargissement du chenal d'accès à la jetée 24 pour le port de Hamilton est terminé et ce chenal desservira un nouveau grand terminus de marchandises emballées.

On a terminé les plans et adjugé un contrat pour l'aménagement d'un nouveau havre pour petites embarcations à Port Dover. Ce havre, dont le coût sera de \$500,000, servira à recevoir les nombreux bateaux de pêche et les autres embarcations à faible tirant d'eau qui ont leur port d'attache à Port Dover.

est d'environ \$8,500,000 et la majeure partie des travaux est censée être finie vers la fin de 1967. Les travaux comprennent la construction d'un nouveau quai public, de deux nouveaux quais de transbordement à chargement par le bout, de cours de triage de wagons et d'un bâtiment d'administration, de même que l'aménagement de parcs de stationnement et l'exécution d'améliorations routières.

D'importants projets d'améliorations et de réparations, comportant chacun une dépense de plus de \$50,000, ont été exécutés à quatre emplacements portuaires de l'île du Prince-Édouard. En outre, on a effectué des travaux d'entretien et des améliorations, à des coûts individuels de moins de \$50,000, à environ 100 autres endroits de l'île.

L'outillage de dragage du Ministère a été occupé pendant toute l'année et a enlevé quelque 180,000 verges cubes de déblais des entrées de ports, bassins de vitrage, etc.

De plus, on a fourni des services techniques au ministère des Pêcheries, au ministère de la Défense nationale et à l'Office d'expansion économique de la région atlantique relativement à la planification, à la conception et à l'exécution de huit projets à l'île du Prince-Édouard.

D'importants projets de construction et d'entretien ont été entrepris à 20 emplacements portuaires au Nouveau-Brunswick. On a également exécuté de menus travaux à environ 200 endroits de cette province.

On a effectué, à 35 endroits, du dragage comportant l'enlèvement de plus de 1,000,000 verges cubes de déblais, le plus grand projet étant celui du chenal de la baie de Courtenay à Saint-Jean, où l'on a dragué plus de 500,000 verges cubes.

La construction d'un nouveau port devant coûter plusieurs millions de dollars et destiné aux cargaisons en vrac a été commencée vers la fin de l'année à Bellefune Point. Le premier contrat adjugé comportait la construction d'un brise-lames et était d'un montant supérieur à \$5,300,000. Le financement des installations portuaires, évalué à \$13,000,000, est partagé entre le Ministère et le Conseil des ports nationaux.

On a terminé, à North Head et à Blacks Harbour, les débarcadères du nouveau service de transbordement de Grand-Manan et continué le grand prolongement au havre de pêche d'Escuminac.

Les dépenses faites au cours de l'année dans la province de Québec pour des ouvrages portuaires payés avec les fonds du Ministère, ont dépassé les \$5,000,000. Parmi ces travaux il y en avait 32 qui ont coûté plus de \$50,000 et le coût estimatif de plus de 350 autres était inférieur à \$50,000.

On a adjugé un contrat pour la construction d'un grand brise-lames de \$5,000,000 à Matane afin de protéger les nouveaux ouvrages portuaires et les opérations maritimes qu'on projette à cet endroit. Le brise-lames est formé d'un remblai en pierre revêtu ou recouvert d'éléments en béton préoulé appelés tétrapodes, dont le Ministère s'est servi en grand nombre pour la première fois au Canada.

La première phase d'un important projet d'améliorations portuaires a été commencée à Rivière-au-Renard, comté de Gaspé. Ces travaux représentent la

DIRECTION DU GÉNIE (Ports et Rivières)

La Direction du génie (ports et rivières) du Ministère était l'organisme chargé surtout de la construction et de l'entretien des ouvrages maritimes fédéraux qui comprenaient les quais, les brise-lames, les chenaux maritimes, les ouvrages de protection de rivage, les bassins de radoub, les écluses et les barrages. Il y a plus de quatre mille de ces ouvrages d'un bout à l'autre du pays. La Direction construisait aussi et mettait en service sur les deux côtes, des unités de dragage et des bâtiments desservant celles-ci. Les dépenses pour la nouvelle construction, les réparations et l'entretien des ouvrages et de l'outillage flottant se sont élevées à plus de \$38,000,000 en 1966-1967.

On avait entrepris un vaste programme d'ouvrages maritimes pour d'autres ministères du gouvernement.

Plusieurs importants projets étaient en cours à Terre-Neuve pour le compte du ministère des Transports. Ils comportaient la continuation de l'aménagement des installations des têtes de ligne des transbordeurs à Port-aux-Basques et à Argentina. On a aussi exécuté d'autres travaux pour le ministère des Transports à Marystown où une piste de halage d'une capacité de 1,000 tonnes est en voie de construction.

Un programme de construction considérable a été entrepris pour le compte du ministère des Pêcheries. Il comprenait la reconstruction de plusieurs dépôts de boîtes et la construction de nombreux entrepôts temporaires et châteaux communaux. Quarante-cinq projets ont été exécutés en tout pour les Pêcheries.

La Direction a pris part à 16 projets de l'Office d'expansion économique de la région atlantique comportant principalement des installations d'alimentation en eau douce pour les usines à poisson de Terre-Neuve.

Le Ministère a continué trois grands travaux portuaires à Botwood, Grand Bank et Fortune en 1966. Le coût estimatif de ces travaux s'élevait à plus de \$3,000,000.

On a également effectué, à Terre-Neuve, des travaux à 35 projets dont le coût varie de \$50,000 à \$800,000 et comportant de la reconstruction, des réparations et des améliorations. De plus, des projets d'entretien et de nouveaux petits projets ont été exécutés à quelque 270 différents endroits.

Les crédits du Ministère ont permis d'entreprendre à 25 endroits en Nouvelle-Ecosse des travaux comportant une dépense de plus de \$50,000 chacun. On a également exécuté 213 projets d'entretien, 56 d'améliorations peu importantes et 74 de dragage dont le coût de chacun est inférieur à \$50,000. De plus, l'outillage du Ministère a fait du dragage à 10 endroits différents.

D'importants projets en vue d'aider l'industrie de la pêche ont été continués à Canso et à Lower East Pubnico. On a commencé la construction d'un grand prolongement au quai de Mulgrave afin de pouvoir y recevoir les navires qui viennent décharger des marchandises à Terre-Neuve, de même que les autres vaisseaux.

Les travaux pour lesquels les fonds sont fournis par le ministère des Transports se sont continués au grand projet d'aménagement d'une tête de ligne de transbordement à North Sydney. Le coût estimatif total des ouvrages maritimes de ce projet

Plus de 100 bureaux de poste occupaient déjà des locaux fournis par la Direction. On a négocié des conventions de location à court terme à d'autres endroits en attendant le résultat des études faites pour déterminer si les locaux loués à long terme étaient satisfaisants et s'il fallait qu'on loue des locaux plus satisfaisants ou que le Couronne les construise.

Environ 150 bureaux de poste à commission ont été inscrits au programme des travaux d'hiver de l'exercice 1966-1967, à un coût estimatif de 3 millions de dollars, ce qui aurait représenté 750,000 heures de travail, y compris 300,000 heures durant la période sévère de chômage à l'hiver.

La Direction a continué de s'occuper de la gestion et de l'entretien des 12 groupements d'habitations dans le Nord.

Cinquante-sept autres habitations pour personnes mariées ont été acquises au cours de l'exercice financier. La Direction a pu éviter à la Couronne la construction de 40 locaux en en jouant d'encourager les entrepreneurs privés à la politique du gouvernement qui est d'encourager les entreprises privées à investir dans les secteurs du Nord. On a dépensé des sommes considérables au cours des mois d'hiver afin de rénover et d'améliorer les logis pour célibataires qui servaient certains édifices de Whitehorse, T.Y., et de Fort Churchill, Man., à transformer ces édifices afin d'y aménager encore plus de logis complets pour célibataires, afin de faciliter le recrutement du personnel des ministères qui effectuent des travaux dans le Grand Nord.

La Division des terrains de l'ancienne Direction (faisant maintenant partie de la Direction des opérations) est chargée d'acquiescer et de vendre des propriétés au nom du ministère des Travaux publics et des ministères clients du service d'acquisition des propriétés du ministère des Travaux publics.

Environ 698 emplacements ont été acquis au cours de l'exercice financier, à un coût définitif prévu de \$4,872,000.

De plus, il y a environ 1,100 emplacements qui en sont à divers stades d'aménagement et dont le coût définitif se chiffrera par environ 16 millions de dollars.

Cette Division est aussi chargée de conseiller les ministères clients à l'égard des méthodes à suivre pour disposer des propriétés, de les aider à obtenir des évaluations d'évaluateurs indépendants et de faire connaître aux ministères clients la juste valeur courante des emplacements qu'ils veulent se procurer. Au cours de l'exercice financier, environ 225 propriétés ont été déclarées excédentaires et cédées à la Corporation de disposition des biens de la Couronne.

Au cours de l'exercice financier, le Ministère a prêté son concours à 16 ministères et organismes fédéraux.

En plus d'être responsable de l'achat de terrains, la Division a été chargée de prendre les mesures voulues pour obtenir des servitudes, pour faire des échanges et autres transactions de propriétés, de concert avec les gouvernements provinciaux et municipaux.

cation), de l'entretien (comprenant tous les services d'entretien) et de l'achat et de la vente des terrains. Une quatrième division affectée à l'administration appuyait les trois autres.

Cette Direction a disparu dans le cadre de la réorganisation du Ministère. Cependant, son personnel et ses fonctions ont été répartis à nouveau et ils continuent d'appuyer le Ministère dans le rôle qu'il a à jouer comme agence de service pour les autres ministères du gouvernement fédéral. Plusieurs des programmes de cette Direction n'ont aucunement perdu de leur importance. Par exemple, le programme continu de transformation des usines de chauffage a pris une telle envergure que la réduction des frais de chauffage se chiffre annuellement par environ \$340,000. Ces résultats proviennent de la réduction des dépenses en immobilisations pour une moyenne de 2.4 années.

L'effectif des employés affectés aux services d'entretien accuse une diminution constante qui résulte d'un programme uniforme visant à payer des entrepreneurs privés pour les services de nettoyage des édifices anciens et nouveaux. La nouvelle Bibliothèque nationale et l'édifice Sir John Carling sont des exemples de nouveaux édifices à Ottawa dont le nettoyage est fait à la suite d'appels d'offres qui ont été annoncés pour la première fois cette année. Parmi les édifices plus anciens d'Ottawa desservis selon le nouveau programme, on retrouve les édifices temporaires n° 2, n° 3 et n° 4. À mesure que les employés affectés à l'entretien deviennent moins nombreux, soit parce que leur service prend fin, soit parce qu'ils prennent leur retraite, ils sont regroupés de manière à permettre aux soumissionnaires privés de faire le nettoyage d'édifices entiers.

De la même façon, la nouvelle organisation continuera de mettre en application les techniques du domaine du logement élaborées au sein de la Direction. La planification à long terme des travaux de construction, qui se poursuit à un rythme en rapport avec la politique fiscale du gouvernement, a largement contribué à la mise en pratique de cette dernière. Au cours de l'année, environ 90 problèmes de logement du genre, touchant 2,750,000 pieds carrés de nouveaux locaux, ont été analysés et leur solution a été l'objet de recommandations faites au Ministère.

Dans les secteurs urbains importants, la réorganisation en profondeur des ministères fédéraux touchant des programmes et nouveaux et prolongés, la tendance générale à déléguer l'autorité aux bureaux régionaux et, en certains cas, le remplacement d'un bureau régional par un certain nombre de bureaux de district locaux, ont suscité un déplacement en masse du personnel et un changement de locaux d'une envergure sans précédent. Au moins une centaine de ces changements et déplacements d'ordre majeur ont été effectués, en plus de plusieurs centaines de changements normaux d'ordre mineur.

La location à bail, qui permet d'ajouter au nombre de locaux que possède la Couronne, demande toujours un travail volumineux. L'augmentation sensible de l'espace loué proprement dit et la meilleure qualité des locaux. Il ne s'agit que très peu souvent d'augmentations engendrées par la majoration des loyers.

Depuis le 1^{er} juillet 1966, le Ministère a assumé la responsabilité du logement des bureaux de poste de première et de deuxième classe que le ministère des Postes a établis à travers le pays. Cette nouvelle classification a touché environ 400 endroits.

chaque district afin que le directeur de district ait à sa disposition les services qu'offre la Direction.

En même temps que se poursuit la réorganisation décrite plus haut, la Direction de l'administration du personnel et les chefs du personnel régionaux ont mis sur pied des systèmes intermédiaires visant à guider les chefs de service régionaux récemment nommés dans la politique à suivre. Ces systèmes seront modifiés lorsque les nouveaux règlements auront été élaborés dans le cadre des nouvelles lois.

Le service des relations du personnel est entré en fonctions au cours de la seconde partie de l'année alors que la loi sur la négociation des conventions collectives en arrivait à son dernier stade. En plus d'avoir mis au point la procédure d'instruction des griefs, le service a élaboré la ligne de conduite que suivra le Ministère en matière de discipline et il a décrit la manière dont la direction conçoit les groupes négociateurs au sein du Ministère. Vers la fin de l'année, le service a amorcé une planification détaillée de l'administration des conventions en ce qui a trait aux employés faisant partie de la catégorie de l'exploitation pour lesquels une accréditation prochaine était prévue.

De nouveaux programmes de classification ont été mis en application pour la plupart des catégories d'occupations du Ministère. Le travail volumineux que représente la classification a été augmenté par la nécessité de classifier les postes et de l'ancienne et de la nouvelle organisation. Le gros de ce travail s'est accompli au cours de l'année et l'incidence des postes d'un cercle rouge et des appels en résultant a été très restreinte.

Les fonctions ordinaires de l'emploi et des services du personnel se sont poursuivies au sein du Ministère dans des circonstances difficiles. En plus du travail régulier, il a fallu choisir parmi des candidats aspirant à plusieurs centaines de postes à des paliers supérieurs de la nouvelle organisation, et le Ministère seul s'est acquitté de cette tâche, en ayant reçu l'autorisation de la Commission du service civil. Le succès de cette opération peut se mesurer au petit nombre d'appels qui ont résulté des nominations (quatre appels, 500 nominations).

Cette méthode de choisir les candidats en masse a été rendue possible par la mise au point d'un système d'appréciation et d'inventaire de la main-d'œuvre qui a été mis en application lors du choix des fonctionnaires intermédiaires et supérieurs. Ce programme, ainsi que la mise au point de ce système et de programmes connexes ayant trait à d'autres groupes d'employés, se poursuivra dans tout le Ministère. À l'avenir, on accentuera de plus en plus la mise en œuvre de l'objectivité d'appréciation et l'élaboration d'une planification précise qui permette aux employés de se perfectionner. La direction a aussi entrepris de mettre au point un système d'ensemble qui permettra de prévoir les besoins et les ressources du Ministère relativement à la main-d'œuvre.

LA GESTION DES IMMEUBLES

La création d'une Direction de la gestion des immeubles au mois de mai 1954 a souligné l'importance grandissante de cette gestion comme fonction du Ministère. Les trois divisions d'exploitation de cette Direction ont encouragé la spécialisation respective dans chacun des trois domaines du logement (affectation et planifi-

SERVICES D'INFORMATION

Les Services d'information se sont adaptés à la réorganisation du Ministère afin que l'information soit diffusée dans les deux sens entre le bureau central et les unités régionales. Les bureaux régionaux et les bureaux de district ont continué de collaborer avec la Direction afin que le Ministère puisse avoir des relations cordiales à tous les paliers.

Des cérémonies officielles marquant des projets publics ont eu lieu dans tous les secteurs du pays et des rapports ont indiqué que leur succès avait rehaussé le prestige du Ministère.

Le nombre de communications relatifs aux dépenses dignes de mention, c'est-à-dire celles de plus de \$25,000, a accusé une augmentation sur l'année précédente. Les organes d'information ont bien accueilli et bien présenté ces communications. Grâce à la collaboration des postes de radio et de télévision, l'emploi de ces moyens de diffusion s'est accru.

La section des documents parlementaires a fourni des réponses à environ 175 questions inscrites au Feuilleton de la Chambre des communes. Au-delà de 10 p. cent de toutes ces questions au cours de l'année s'adressaient au Ministère. La section a de plus classifié de nombreux ordres de dépôt de documents formulés par les députés.

La Bibliothèque du Ministère, qui relève de la Division des Services d'information, a prêté en moyenne 412 ouvrages par mois en comparaison de 370 l'année précédente. La circulation des périodiques est passée de 2,100 à 2,246 par mois. La bibliothèque possède maintenant 18,744 livres catalogués et périodiques reliés, soit une augmentation de plus de 500 sur l'année précédente.

Une filiale de la bibliothèque, aux laboratoires d'essais, a prêté en moyenne 250 ouvrages et 90 périodiques par mois.

PERSONNEL

La Direction de l'administration du personnel, en plus de son travail ordinaire, a réorganisé tous ses services de façon à les adapter à la réorganisation générale du Ministère. Des lois importantes touchant le domaine du personnel ont été promulguées, des cadres du Ministère ont été choisis et des programmes importants de classification ont été mis en vigueur.

Le poste de Directeur de l'administration du personnel a été créé afin de diriger la mise en pratique de la politique du bureau central par l'intermédiaire de quatre chefs spécialisés dans les services suivants: l'emploi et les services du personnel, la planification et le perfectionnement de la main-d'œuvre, la classification et l'indemnisation, et les relations du personnel.

Il est proposé que l'effectif de la Direction au bureau central soit de 31 personnes, nombre relativement restreint.

Au cours de l'année, un chef du personnel a été nommé dans chacune des six régions décentralisées et il s'est occupé activement de recruter le personnel pour le second. On a l'intention de nommer un administrateur du personnel dans

protection contre les incendies et de la prévention des incendies dans les ministères civils du gouvernement fédéral. De plus, des membres de son personnel du Yukon et des Territoires du Nord-Ouest, en leur qualité de prévôt des incendies et de prévôt adjoint des incendies, ont exercé des fonctions semblables en ce qui concerne la propriété privée et la propriété du gouvernement fédéral dans ces territoires. La Direction, en sa qualité d'expert-conseil, a aussi effectué des travaux pour le Conseil des ports nationaux, la Société centrale d'hypothèques et de logement et l'Administration de la voie maritime du Saint-Laurent.

Dans les organismes tombant sous la responsabilité du commissaire fédéral des incendies, il y a eu 375 incendies en 1966 et les pertes se sont chiffrées par \$532,870 au total comparativement aux 490 incendies qui ont coûté \$1,864,083 au cours de l'année précédente. Les chiffres de 1966 représentent un rapport de pertes d'un peu plus de 1 p. cent par \$100 de propriété, comparativement au rapport moyen de \$0.30 par \$100 pour toutes les propriétés assurées du Canada.

Le service d'ingénieurs-conseils de la Direction, qui prend de plus en plus d'importance, a étudié les plans de 350 projets et a fait parvenir aux ministères en cause les normes relatives à la protection contre les incendies. De plus, elle a rédigé près de 20 devis portant sur les installations de protection contre les incendies.

La Direction a aussi fait des enquêtes techniques sur 89 propriétés importantes choisies, comme les aéroports, les pénitenciers, les pensionnats indiens, les usines d'énergie atomique et les parcs nationaux. Elle a aussi reçu et examiné plus de 575 rapports d'inspection présentés par des autorités provinciales et municipales de prévention des incendies et par d'autres organismes du gouvernement.

Le travail des comités techniques interministériels, effectué en collaboration avec des organismes privés, a permis de publier quatre nouvelles normes techniques de protection contre les incendies se rapportant: aux installations d'éclairage d'urgence, aux élévateurs à grains, à l'entreposage des dossiers et aux travaux de coupage et de soudage. Ces normes ont une portée et des exigences originales et on prévoit qu'elles seront reconnues sur le plan international et qu'elles serviront de base aux prescriptions de plusieurs codes nationaux.

Le programme de formation du personnel s'est poursuivi. En plus des conférences et des démonstrations sur les mesures de prévention contre les incendies, deux cours complets touchant la prévention des incendies et la protection contre les incendies ont été donnés aux employés affectés aux projets de la Direction avant leur départ pour des localités lointaines. En tout, environ 125,000 fonctionnaires ont de nouveau participé aux exercices d'évacuation tenus dans les édifices du gouvernement.

La cinématèque a répondu à plus de 1,250 demandes faites par des organismes du domaine privé et du gouvernement.

Au Yukon et dans les Territoires du Nord-Ouest, le prévôt des incendies et son adjoint ont visité 38 collectivités, approuvé les plans de 78 nouveaux projets et donné 13 séries de cours pour les directeurs et les membres de services d'incendie. De plus, le prévôt a émis 246 ordres et recommandations pour éliminer des dangers d'incendie dans des édifices.

ministère des Pêcheries au moment où des demandes d'aide aux pêcheries étaient à l'étude. Des recommandations particulières ont été faites dans chaque cas.

PLANIFICATION D'URGENCE

Le travail de l'enquête sur la protection contre les retombées radioactives au Canada a atteint un point culminant à l'été de 1966, alors qu'il y avait environ 300 personnes affectées à cette enquête d'un océan à l'autre. La plupart étaient des étudiants que la Commission du service civil avait recrutés au sein des universités de toutes les provinces, sauf l'Alberta et la Saskatchewan. En Alberta, l'enquête a été terminée en 1964, tandis que celle de la Saskatchewan doit s'effectuer en 1967.

Le projet national a avancé à un bon rythme, toutes les enquêtes dans les provinces Maritimes ayant été terminées. En Colombie-Britannique et au Manitoba, plus de 80 p. cent du travail a été accompli. Les enquêtes en Ontario et au Québec sont de 50 p. cent près d'être achevées. Environ 70,000 feuillets d'inscription des données ont été remplis. Par la suite, elles sont traitées au Bureau central de traitement des données.

Une réunion d'études sur la régie du logement a eu lieu au collège de l'Organisation des mesures d'urgence et plusieurs représentants des neuf provinces y étaient présents. Par la suite, on a visité chaque province afin d'y stimuler la planification. On a poursuivi la liaison avec les autorités provinciales dans d'autres domaines de la planification d'urgence.

Le Ministère a participé, sur les plans central et régional, à l'exercice Tocsin 1966, exercice national dont l'objectif était de mettre à l'essai et d'améliorer la marche du gouvernement en cas d'urgence. La présence de hauts fonctionnaires a permis d'y faire une étude détaillée des responsabilités qu'engendre la planification d'urgence civile.

SERVICES FINANCIERS

Au cours de l'année, la Division des services financiers s'est occupée de coordonner et d'analyser les prévisions budgétaires du Ministère; elle a mis au point et appliqué des procédés de vérification comptables et budgétaires; elle a élaboré des lignes de conduite et des procédés relatifs à l'administration des contrats. La Division a agi comme mandataire du Ministère auprès du Comité consultatif du Conseil du Trésor sur les contrats et a assumé généralement la liaison avec le contrôleur du Trésor et le Conseil du Trésor sur les questions financières. Au cours de la dernière partie de l'année, les membres de la Division ont commencé à élaborer des systèmes financiers qui permettent de mettre en vigueur la nouvelle organisation du Ministère et de déléguer aux bureaux régionaux et aux bureaux de district, l'autorité et la responsabilité touchant les questions financières.

DIRECTION DE LA PRÉVENTION DES INCENDIES

Durant l'exercice financier 1966-1967, le commissaire fédéral des incendies a continué d'exercer ses fonctions relativement à la direction des programmes de

Le Bureau des besoins ministériels a assuré la liaison entre les bureaux de districts et le bureau central dans les cas d'achats où il fallait l'approbation du bureau central. Il s'est aussi occupé de négocier plusieurs centaines de demandes de relance se rapportant aux besoins des districts. Le bureau était encore chargé de traiter avec le Service des approvisionnement du gouvernement canadien à propos des besoins. Il devait aussi recevoir, examiner, interpréter et distribuer les contrats émis par les Services d'achat du gouvernement canadien pour le compte du Ministère. Il a préparé et émis cinq directives se rapportant aux méthodes relatives aux contrats nationaux, aux casques de sécurité et à divers genres d'appareils.

Au cours de l'année, le Bureau des besoins ministériels a examiné et approuvé plus de 8,000 demandes, a reçu 5,400 contrats pour des besoins dans les districts, a examiné, approuvé et adjugé 1,300 contrats, a examiné 8,100 commandes d'achat locales des bureaux de districts. Le bureau a aussi envoyé 200 demandes relatives à des conventions d'offres permanentes, a examiné 1,100 conventions d'offres permanentes reçues des bureaux de districts relativement à des contrats nationaux et a pris 800 mesures directes par lettre.

Le Service du matériel et des fournitures a continué de requisionner et de fournir la papeterie en général, les imprimés et les appareils et fournitures de bureau. La fourniture et l'inventaire de l'ameublement réglementaire du bureau est devenu la responsabilité de ce service au cours de l'année. Ce bureau a continué aussi à traiter avec le Service des approvisionnements du gouvernement canadien, au ministère de la Production et de défense, à propos des besoins ministériels relatifs à l'impression, la reproduction et les services connexes.

Les Services administratifs ont fourni les moyens de télécommunication et des laissez-passer pour les édifices publics. Ce service était aussi chargé du contrôle des véhicules à moteur et des indemnités de déplacement dans les régions voisines du bureau central.

DIRECTION DES ETUDES ECONOMIQUES

Au cours de l'exercice financier 1966-67, la Direction des études économiques a étudié l'aspect économique de plus de 600 projets et elle a présenté des recommandations particulières à leur égard.

On a effectué des prévisions économiques et démographiques pour environ 110 collectivités, y compris plusieurs agglomérations métropolitaines, où l'on envisage de fournir de nouveaux locaux à des organismes fédéraux. L'objectif était de faciliter une planification qui permette de répondre aux besoins futurs des collectivités. Cette fonction s'ajoute à la participation de la Direction aux activités du Comité consultatif du Conseil du Trésor sur les locaux.

La Direction est également représentée au sein du Comité consultatif du Conseil du Trésor en matière de construction maritime qui étudie les projets maritimes nécessitant des dépenses fédérales. Elle l'est aussi au sein d'un certain nombre de comités permanents interministériels comme celui sur les travaux d'hiver et le Groupe interministériel Travaux publics — Transports sur les ports canadiens.

Des membres de la Direction ont fait des enquêtes spéciales sur place dans plusieurs secteurs et dans certains ports en collaboration avec des fonctionnaires du

Parmi ses adjoints, il faut compter un certain nombre de sous-ministres adjoints, le premier étant le sous-ministre adjoint principal (Opérations) qui s'occupe, entre autres choses, de l'administration efficace des bureaux régionaux et des bureaux de districts. Lorsque le poste a été créé, il avait la direction de l'équipe de mise en œuvre établie pour réaliser le projet d'organisation du Ministère.

Un sous-ministre adjoint (études techniques) est chargé d'établir des normes pour les locaux et le génie et doit aussi exécuter des projets comme le Centre national des arts et le terminus postal de plusieurs millions de dollars projeté à Toronto lequel, à cause de son envergure et de sa complexité, dépasse les ressources des bureaux régionaux.

Le sous-ministre adjoint (Planification des programmes), qui est en tête de la Direction de la planification des programmes, assure des services experts et l'appui nécessaire aux autres ministères du gouvernement dans l'exécution de leurs programmes de construction. Cette direction comprend deux branches principales: l'une chargée de la planification de tous les locaux, l'autre chargée de toute la planification de génie. Elle fournit non seulement des conseils et l'appui nécessaire aux nombreux clients du Ministère mais elle explique aussi les besoins des ministères aux autres directions et s'assure que les exigences sont satisfaites.

Un objectif premier de la nouvelle organisation du Ministère est d'obtenir des rapports plus étroits de travail avec les ministères clients d'une part et l'industrie de la construction d'autre part. Vu que le personnel des bureaux régionaux et des bureaux de districts seront géographiquement plus près des projets du Ministère, on devrait conséquemment accorder une attention plus étroite aux problèmes locaux et avoir plus de facilité à traiter avec les entrepreneurs, les architectes et les ingénieurs-conseils. Tous ces avantages, il est à espérer, apporteront dorénavant plus d'efficacité dans les opérations.

SECRÉTARIAT ET SERVICES ADMINISTRATIFS

Le volume du courrier reçu accuse une diminution de 15 pour cent sur celui de l'an dernier et le nombre de nouveaux dossiers ouverts au Dépôt central des dossiers a diminué considérablement lorsqu'on a remis aux ministères en cause la tâche de réquisitionner l'amublement en s'adressant directement au ministère de la Production de défense. Le programme de disposition des dossiers a fait réaliser une épargne de 2,174 pieds cubes d'espace d'entreposage des dossiers ou l'équivalent de 217 classeurs à quatre tiroirs, soit une augmentation de 64 pour cent sur 1965-1966.

Les Services de photographie ont reproduit 1,500 pieds carrés de documents par photocopie blanche, photocopie bleue, photostat et divers autres procédés. Plusieurs photographies de perspectives d'édifices, de graphiques, d'édifices à diverses étapes de leur construction et d'accidents ont été prises pour des communications de presse et à d'autres fins. De plus, ce service a fourni de l'aide à 27 autres bureaux du gouvernement. Le service de reproduction a produit 1,285,000 copies de documents.

Les études se sont poursuivies relativement à la microreproduction de plans pour les projets de construction. Les plans des bureaux de poste réglementaires ont été reproduits à demi-échelle en vue des soumissions.

Un contrat de \$8,220,000 a été adjugé en vue de la construction d'un complexe de laboratoires pour le ministère de l'Énergie, des Mines et des Ressources sur le chemin Corkstown, dans la banlieue ouest d'Ottawa. Une somme de \$7,594,000 a été adjugée relativement à une institution de sécurité maximum à Sainte-Anne-des-Plaines, au nord de Montréal. La construction d'un brise-lames à Belledune (N.-B.) a nécessité l'adjudication d'un contrat de \$5,333,313 et la construction d'un brise-lames et d'une voie d'accès au quai à Matane, un contrat de \$4,995,005. Vu que la nouvelle organisation du Ministère sera fondée sur la planification, les études techniques et les opérations plutôt que sur le genre de travaux, certaines directions du Ministère présentent, pour la dernière fois, leurs rapports annuels sous la forme habituelle. À la fin de l'année financière, ces directions (Construction des édifices, Ports et Rivières, Génie (aménagement) et Gestion des immeubles) ont cessé de fonctionner comme unités distinctes au sein du Ministère et leurs tâches ont été réparties, en grande partie, entre les six nouveaux bureaux régionaux dans tout le Canada. Voici la liste des régions, leurs limites géographiques approximatives et la situation de leurs bureaux :

Région du Pacifique, desservant la Colombie-Britannique et le Territoire du Yukon — Vancouver;

Région de l'Ouest, comprenant les provinces des Prairies et la majeure partie des Territoires du Nord-Ouest — Edmonton;

Région de l'Ontario, comprenant la province sauf une partie de la région de la vallée de l'Outaouais — Toronto;

Région de la Capitale, s'étendant dans une direction nord-ouest, du fleuve Saint-Laurent entre Gananogue (Ont.) et la frontière du Québec, sur chaque côté de la rivière Outaouais jusqu'à Rouyn-Noranda (P.Q.) — Ottawa;

Région du Québec, comprenant la majeure partie de la province et l'île de Baffin — Montréal;

Région de l'Atlantique, réunissant les provinces du Nouveau-Brunswick, de l'Île du Prince-Édouard, de la Nouvelle-Écosse et de Terre-Neuve — Halifax.

Parmi les responsabilités que le bureau central a confiées aux bureaux régionaux à mesure que l'année prenait fin, il faut compter : la conception des édifices, des ouvrages maritimes et des ouvrages de génie, la demande et le décaissage des soumissions et l'adjudication de contrats jusqu'à concurrence de \$1,000,000 lorsqu'ils sont compris dans les prévisions et ne sont pas d'un caractère exceptionnel, le pouvoir d'approuver les dessins d'atelier et l'achat de matériaux sur place ainsi que le versement de paiements, y compris les paiements en acompte, par l'intermédiaire des bureaux locaux.

Aux termes des pouvoirs qui leur ont été conférés, les directeurs régionaux sont autorisés à régler les réclamations relatives à la construction et à s'occuper d'autres genres de contrats jusqu'à concurrence d'un montant maximum établi. Pour ce qui est des réclamations qui dépassent ce maximum, ils ont la responsabilité de préparer les demandes d'approbation pour le Conseil du Trésor. Ils sont aussi en mesure d'approuver les prolongations de délais d'achèvement des travaux, lorsqu'elles sont justifiées, et d'autoriser les changements de sous-entrepreneurs.

Au bureau central à Ottawa, le sous-ministre continue, en sa qualité de directeur en chef du Ministère, de coordonner les travaux du Ministère et de diriger la mise en application de la ligne de conduite du Ministère.

AVANT-PROPOS

L'année financière 1966-1967 a été d'une importance exceptionnelle pour le ministère des Travaux publics puisqu'elle a vu la fin d'un chapitre dans l'évolution historique du Ministère et les derniers préparatifs en vue du commencement d'un nouveau. Les fonctions et les obligations du Ministère demeurent inchangées, mais on s'est efforcé de préparer la voie pour une nouvelle organisation qui augmenterait l'efficacité générale du Ministère et lierait plus étroitement ses fonctions aux besoins régionaux variés du Canada.

La réorganisation avait pour objectif d'exposer clairement le rôle du ministère des Travaux publics en tant qu'organisme fournissant des services aux autres ministères du gouvernement et de décentraliser les opérations dans la plus grande mesure possible.

Une étude générale de l'organisation du Ministère a été faite en 1965 par un bureau de conseillers en administration pour répondre aux recommandations de la Commission Glassco. Le travail de réorganisation proprement dit, fondé sur les constatations des conseillers, a commencé tôt en 1966 et a duré toute l'année financière suivante. Il doit amener la disparition, par étapes, de l'ancienne organisation durant une période dont la fin a été fixée au 31 mars 1967.

Cela signifiait que certains secteurs dans la nouvelle organisation devaient être mis en état de fonctionner bien avant la date fixée pour le changement. Par exemple, la nouvelle Direction de la planification des programmes a été mise en fonction tôt en 1967 pour ce qui est de l'élaboration et de l'exécution du programme ministériel de 1968-1969.

La période de réorganisation a été, par nécessité, une période difficile et pénible durant laquelle il a fallu nommer et déplacer le personnel, se familiariser avec les nouvelles méthodes et élaborer de nouveaux systèmes d'exploitation et de gestion jusque dans les moindres détails. Il a fallu, en même temps, continuer à s'acquitter des tâches ordinaires du Ministère.

Malgré les difficultés, le Ministère a atteint un nouveau sommet dans ses réalisations durant l'année. Le volume de la construction, par exemple, a atteint une valeur de \$340,421,716, en comparaison d'un total de \$322,122,983 durant l'année financière 1965-1966 qui était elle-même l'année record de tous les temps.

Le Ministère a adjudgé des contrats relativement à 1,202 projets d'une valeur dépassant \$5,000. Même si le nombre de projets annoncés indiquait une diminution de huit pour cent sur le nombre annoncé durant l'année financière précédente, le nombre de soumissions reçues a augmenté d'environ 20 pour cent, révélant ainsi une concurrence plus saine que celle qui avait existé au cours des deux ou trois années antérieures.

Les 288 contrats se rapportant à la construction d'édifices représentaient une augmentation sur le chiffre de l'année précédente, qui était de 259. Des contrats, au nombre total de 459, ont été adjudgés relativement à des travaux de ports et rivières, 48 pour des travaux de génie (aménagement), y compris des routes, et 407 pour les opérations de la gestion des immeubles.

Le contrat le plus important adjudgé au cours de l'année a été le contrat principal pour le Centre national des arts à Ottawa, au montant de \$31,848,000.

Directeurs de districts —

Toronto
 London
 Sault-Sainte-Marie
 R. S. Fonberg
 J. M. Dunphy
 C. L. Davies

Région de l'Ouest (Edmonton)

Directeur régional
 Gérant des opérations
 Chef des études techniques
 Chef des services financiers et administratifs
 Chef de l'administration du personnel
 R. G. McFarlane
 R. B. Angus
 A. E. Cook
 G. I. Cameron
 C. A. Pickell

Directeurs de districts —

Manitoba (Winnipeg)
 Fort Churchill (Man.)
 Calgary (Alb.)
 Edmonton (Alb.)
 H. C. Tod
 Gérant du MTP —
 R. G. Harding
 A. L. Perley
 P. W. Walters

Région du Pacifique (Vancouver)

Directeur régional
 Gérant des opérations
 Chef des études techniques
 Chef de l'administration du personnel
 W. Koropatnick
 A. W. Walkey
 R. J. Bickford
 J. B. Roe
 Directeurs de districts —
 Colombie-Britannique (Vancouver)
 Yukon (Whitehorse, T. du Y.)
 W. W. Ryan
 R. K. Coates

Directeur des services administratifs
 Robert Fortier
 Directeur des services d'information
 W. H. Dumsday
 Commissaire fédéral des incendies
 R. A. Switzer

Région de l'Atlantique (Halifax)

Directeur régional
 J. E. Bright
 Gérant des opérations
 J. A. Brown
 Chef des services financiers et administratifs
 I. M. Thomas
 Chef de l'administration du personnel
 L. O. Pertus
 Directeurs de districts —
 Terre-Neuve
 G. E. Knight
 Nouvelle-Ecosse
 D. Sutherland
 Nouveau-Brunswick
 D. I. Higgins
 Ile du Prince-Edouard
 B. McLennan

Région du Québec (Montréal)

Directeur régional
 L.-A. Deschamps
 Gérant des opérations
 R. Leblanc
 Chef de l'administration du personnel
 C.-A. Boudreau
 Directeurs de districts —
 Montréal
 Québec
 G. K. Aubut
 Gérard LaJoie

Région de la Capitale (Ottawa)

Directeur régional
 E.-C. Martel
 Directeur des services de gestion des immeu-
 bles
 A. D. Wilson
 Directeur des services d'études techniques
 R. F. West
 Directeur des services de construction
 G.-A. Corriveau
 Chef de l'administration du personnel
 J.-J. Mainiot

Région de l'Ontario (Toronto)

Directeur régional
 E. D. Manchul
 Gérant des opérations
 W. H. Robinson
 Chef des études techniques
 D. H. Miller
 Chef des services financiers et administratifs
 E. Atkins
 Chef de l'administration du personnel
 J. A. Good

MINISTÈRE DES TRAVAUX PUBLICS

RÉPERTOIRE DU PERSONNEL

(au 31 mars 1967)

Ministre	L'hon. George J. McIlraith
Secrétaire parlementaire	John B. Stewart, député
Chef de cabinet du ministre	Lt-Col. Paul Hart
Adjoint spécial au ministre	Alex Morin
Sous-ministre	Lucien Lalonde
Directeur des projets spéciaux	D. A. Freze
Sous-ministre adjoint principal (Opérations)	G. B. Williams
Conseiller technique (Passage du détroit de Northumberland)	G. T. Clarke
Agent des opérations —	
Région de l'Atlantique	G. T. Stohart
Région du Québec	J.-C. Richard
Région de la Capitale	S. C. Ings
Région de l'Ontario	Arnold Keehner
Régions de l'Ouest et du Pacifique	H. M. Millar
Sous-ministre adjoint	G. T. Jackson
Sous-ministre adjoint (Planification des programmes)	R. B. Whiting
Directeur de la planification du logement	Henry de Puyjalon
Directeur de la planification technique	C. K. Hurst
Chef de la planification interne	J. W. Bailey
Chef des études économiques	C. J. Daly
Sous-ministre adjoint (Études techniques)	J. A. Langford
Architecte en chef	A. K. Mills (intérimaire)
Ingénieur en chef	G. Millar
Chef des normes de logement	E. G. Langley
Chef des laboratoires d'essais	N. E. Laycraft
Directeur de l'évaluation des programmes	H. D. McFarland
Directeur des services financiers	L. V. McGurran
Directeur de l'administration du personnel	W. F. Nelson

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LUCIEN LALONDE.

Le sous-ministre,

Votre obéissant serviteur,

J'ai l'honneur de vous soumettre le rapport annuel du ministère des Travaux publics pour l'exercice financier terminé le 31 mars 1967.

MONSIEUR,

A l'honorable George J. McIlraith, ministre des Travaux publics, Ottawa.

GEORGE J. McILRAITH.

Le ministre des Travaux publics,

Respectueusement soumis,

J'ai l'honneur de présenter à Votre Excellence le rapport annuel du
ministère des Travaux publics pour l'exercice financier terminé le 31
mars 1967.

EXCELLENCE,

*A Son Excellence le Très Honorable Roland Michener,
Gouverneur général et Commandant en chef du Canada.*

N° de cat.: W1-1967

ROGER DUHAMEL, M.S.R.C.
Imprimeur de la Reine et Contrôleur de la Papeterie
Ottawa, 1967

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année financière terminée le 31 mars 1967

ministère des travaux publics rapport annuel



ministère des travaux publics
rapport annuel



année financière terminée le 31 mars 1967

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